# **EXHIBIT 3**

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17		ES DISTRICT COURT
18	NORTHERN DIST	TRICT OF CALIFORNIA
19	CISCO SYSTEMS, INC.,	) CASE NO. 5:14-cv-05344-BLF
20	Plaintiff,	) )
21		PLAINTIFF CISCO SYSTEMS, INC.'S SUPPLEMENTAL OBJECTIONS AND
21	V.	RESPONSES TO DEFENDANT
22	ARISTA NETWORKS, INC.,	ARISTA NETWORKS, INC.'S
23	Defendant.	) INTERROGATORY NOS. 16 AND 19
	2 61611011111	, )
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CASE No. 5:14-CV-05344-BLF

CISCO'S SUPPLEMENTAL OBJECTIONS AND RESPONSES TO ARISTA'S INTERROGATORY 16 AND 19

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Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure, Plaintiff Cisco Systems, Inc. ("Cisco"), by counsel, hereby provides its supplemental objections and responses to Defendant Arista Networks, Inc.'s ("Arista's") Interrogatory Nos. 16 and 19.

## **GENERAL OBJECTIONS**

Cisco makes the following general objections to Arista's Interrogatories, which apply to each interrogatory regardless of whether the general objections are specifically incorporated into the specific objections and responses below.

- 1. Cisco is responding to each interrogatory as it interprets and understands each interrogatory with respect to the issues in this Litigation. If Arista asserts a different interpretation of any interrogatory, Cisco reserves the right to supplement or amend its responses or objections.
- 2. Cisco objects to each interrogatory to the extent it is inconsistent with or seeks to impose obligations beyond those imposed by the Federal Rules of Civil Procedure, the Civil and Patent Local Rules of the Northern District of California, and any orders governing this Litigation.
- 3. Cisco objects to the definitions of "Cisco," "You," and "Your," to the extent that the definitions are overly broad and purport to require Cisco to provide information that is not within the possession, custody, or control of Cisco.
- 4. Cisco objects to Arista's definition of "Asserted Patents" and "Asserted Claim" to the extent that Arista's use of those terms in its interrogatories to Cisco renders certain of Arista's Interrogatories as constituting multiple discrete subparts that are in fact multiple, separate interrogatories.
- 5. Cisco objects to the definitions of "CLI Command" and "Network Management Product" to the extent that these terms are vague and ambiguous with respect to their scope and application as used by Arista, rendering these terms at least potentially unclear with respect to what particular devices are intended to be incorporated thereby, and further on the grounds that use of the terms in Arista's Interrogatories renders those interrogatories overbroad and unduly burdensome to the extent that the discovery sought by such interrogatories is not reasonably tied to Cisco's claims or Arista's defenses in this Litigation. Cisco further objects to the use of these

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9. Cisco objects to the "Definitions" and "Instructions" of the Interrogatories to the extent they alter the plain meaning of any specific interrogatory and render the interrogatory

documents in violation of an applicable foreign law or regulation.

terms in Arista's Interrogatories to the extent that such interrogatories are not reasonably calculated to lead to the discovery of admissible evidence.

- 6. Cisco objects to the definition of "Relating to" as vague and ambiguous and overly broad, unduly burdensome, and further to the extent that interrogatories using such terms are not reasonably calculated to lead to the discovery of admissible evidence.
- 7. Cisco objects to the definition of "Identify" and the instructions set out in Paragraphs 10–12 as overly broad, unduly burdensome, and further to the extent that interrogatories using such terms are not reasonably calculated to lead to the discovery of admissible evidence. Cisco further objects to these definitions and instructions to the extent that the burden of deriving or ascertaining the requested information is substantially the same for Arista as it is for Cisco.
- 8. Cisco objects to each and every interrogatory as overly broad, unduly burdensome, cumulative, and duplicative to the extent it seeks identification of "any," "each," or "all" documents of a specified type or nature, when a subset of such documents will provide the requested information. Cisco objects generally to each and every interrogatory as overly broad, vague and ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent that it seeks information regarding "any," "each," or "all" persons, entities, objects, or events.
- vague, ambiguous, and overbroad. 10. Cisco objects to each interrogatory to the extent that it is unlimited in temporal and/or geographic scope, or to the extent it would require Cisco to provide information or
- 11. Cisco objects to each interrogatory to the extent that it is overbroad, unduly burdensome, and/or calls for provision of information or documents that are neither relevant to any claim or defense in this litigation nor reasonably likely to lead to the discovery of admissible evidence.

- 12. Cisco objects to each interrogatory to the extent that it calls for production of information or documents that are not within the possession, custody, or control of Cisco, or to the extent the interrogatory seeks information that may not be disclosed pursuant to a protective order or non-disclosure agreement, or calls for Cisco to prepare documents and/or things that do not already exist.
- 13. Cisco objects to each interrogatory to the extent that it calls for production of information or documents that are publicly available or equally available to Arista, and therefore are of no greater burden for Arista to obtain than for Cisco to obtain.
- 14. Cisco objects to each interrogatory as overbroad and unduly burdensome to the extent that it is not limited to a time frame relevant to this Litigation or seeks information or documents not within the applicable scope of this Litigation.
- 15. Cisco objects to each interrogatory to the extent it seeks information or documents that Cisco is not permitted to disclose pursuant to confidentiality obligations to third parties or court order. Cisco will provide such responsive, relevant, and non-privileged information and/or produce documents in accordance with the Protective Order governing this Litigation and after complying with its obligations to the third party and/or court.
- 16. Cisco objects to each interrogatory to the extent it seeks information, documents, and/or things protected from disclosure by the attorney-client privilege, work-product doctrine, common-interest privilege, and/or any other applicable privilege, immunity, doctrine, or protection, including without limitation in connection with the common interest doctrine (collectively, as used herein, "privileged"). Nothing contained in these objections and responses should be considered a waiver of any attorney-client privilege, work-product protection, or any other applicable privilege or doctrine, including in connection with the common interest doctrine. Cisco does not intend to provide information or produce documents that would divulge any privileged information. Any such disclosure is inadvertent and shall not be deemed a waiver of any applicable privilege or immunity.
- 17. Cisco objects to Arista's Interrogatories to the extent that their subparts exceed the number of interrogatories permitted under the Federal Rules of Civil Procedure, including Rule

33(a)(1), the Civil and Patent Local Rules of the Northern District of California, and any orders governing this Litigation.

- 18. Cisco objects to each interrogatory to the extent that it is vague, ambiguous, or confusing due to Arista's failure to define terms or failure to describe the information or documents sought with reasonable particularity.
- 19. Cisco objects to the factual characterizations of Arista's Interrogatories. By responding, Cisco does not accept or admit any of Arista's factual characterizations.
- 20. Terms or phrases with specific legal significance appear in many of Arista's Interrogatories. Neither Cisco's objections and responses, nor the provision of information or production of documents in response to any interrogatory, are an admission or indication that such information and documents are relevant to any legal theory, or that any of the legal terms used have any applicability in their legal sense to any information or documents produced by Cisco in response to the Interrogatories.
- 21. Cisco objects to these Interrogatories on relevance and burden grounds to the extent they are not limited in temporal scope, or to the extent that time period specified encompasses time periods not relevant to this Litigation, or to the extent the requests are not limited in geographic scope.
- 22. Cisco objects to the Interrogatories as overly broad and unduly burdensome to the extent they call for the provision of information or production of documents of technical information, or otherwise, including source code, in connection with Cisco's products, where such information or documents are either duplicative of other documents or information that will be produced and/or are not relevant to this Litigation and Cisco's products relevant to this Litigation. Cisco further objects to the Interrogatories to the extent that they call for the provision of information or production of documents of technical information, or otherwise, including source code, in connection with Cisco's products, where such information and documents are not necessary to understand the relevant structure, function, and operation of Cisco's products relevant to this Litigation.

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Cisco objects to each interrogatory as premature to the extent it calls for documents or information that is the subject of later disclosure deadlines in this Litigation and/or expert reports and testimony, including as set forth in Rule 26(a)(2) of the Federal Rules of Civil Procedure, the Patent Local Rules of the Northern District of California, and the Case Management Order entered in this Litigation.

- 24. Any Cisco response that it will provide information or produce documents should not be construed to mean that responsive information or documents in fact exist; only that, if such relevant, non-privileged, non-objectionable information or documents exist, are in Cisco's possession, custody, or control, and are located after a reasonable search of the location or locations where responsive information or documents are likely to be located, such information or documents will be produced in a timely manner.
- 25. Cisco further reserves all rights to supplement its responses to Arista's Interrogatories in compliance with the Federal Rules of Civil Procedure, including under Rule 26(e), as well as the Civil and Patent Local Rules of the Northern District of California and any orders governing this Litigation, and as Cisco's investigation and discovery proceeds in this Litigation.

## RESPONSES TO INTERROGATORIES

## **INTERROGATORY NO. 16:**

For each CLI Command listed in Cisco's Second Amended Complaint (including exhibits) and each command hierarchy listed in Cisco's Second Amended Complaint (including exhibits), and each command mode and prompt listed in Cisco's Second Amended Complaint (including exhibits), identify: (i) the author or originator of such Command, command hierarchy, command mode and prompt, (ii) the date of such authorship or creation, (iii) the document(s) in which such Command, command hierarchy, command mode or prompt was first fixed in any tangible medium of expression, (iv) the document(s) in which such Command, command hierarchy, command mode or prompt was first published, and (v) the first Cisco product (including version number) that used or responded to each CLI Command, command hierarchy, command mode or prompt.

## **RESPONSE TO INTERROGATORY NO. 16:**

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Cisco incorporates by reference its General Objections as though fully set forth herein. Cisco further objects to this interrogatory as compound and unduly burdensome, as it calls for thousands of pieces of information. Cisco further objects to this interrogatory as irrelevant and not calculated to lead to the discovery of admissible evidence to the extent it seeks information not relevant to the copyrightability of Cisco's works-in-suit and seeks information regarding acts not at issue in this suit. Cisco further objects to this interrogatory to the extent that it calls for information that is publicly available or equally available to Arista, and therefore is of no greater burden for Arista to obtain than for Cisco to obtain. Cisco also objects to this interrogatory as undefined, vague, ambiguous, overbroad, and unduly burdensome in its use of the terms "each CLI command," "each command hierarchy," "each command mode and prompt," and "identify." Cisco further objects to this interrogatory to the extent it calls for a legal conclusion. Cisco also objects to this interrogatory to the extent that it is cumulative and duplicative of other discovery sought by Arista, including at least Interrogatory No. 5. Cisco further objects to this interrogatory to the extent it seeks information that is protected by the attorney-client privilege, that constitutes attorney work-product, or that is protected by any other applicable privilege, protection, or immunity, including without limitation in connection with the common interest doctrine.

Subject to and without waiver of the foregoing general and specific objections, Cisco responds as follows:

Cisco incorporates by reference its response to Arista's Interrogatory No. 5 as if fully set forth herein. Because the burden of identifying the information sought by this interrogatory is the same for Arista as it is for Cisco, pursuant to Fed. R. Civ. P. 33(d), Cisco identifies the following documents as containing responsive information:

IOS v. 11.0: Source Code, CSI-CLI-00403865, CSI-CLI-00356391 - CSI-CLI-00356394, CSI-CLI-00356395 - CSI-CLI-00356398.

IOS v. 11.1: Source Code, CSI-CLI-00403866, CSI-CLI-00356385 - CSI-CLI-00356388, CSI-CLI-00356588 - CSI-CLI-00356591, CSI-CLI-00356500 - CSI-CLI-00356501, CSI-CLI-00356562 - CSI-CLI-00356563.

1	IOS v. 11.2: Source Code, CSI-CLI-00403867, CSI-CLI-00356578 - CSI-CLI-00356581,
2	CSI-CLI-00356496 - CSI-CLI-00356499.
3	IOS v. 11.3: Source Code, CSI-CLI-00403868, CSI-CLI-00356538 - CSI-CLI-00356541,
4	CSI-CLI-00356446 - CSI-CLI-00356549, CSI-CLI-00356582 - CSI-CLI-00356587, CSI-CLI-
5	00356576 - CSI-CLI-00356577.
6	IOS v. 12.0: Source Code, CSI-CLI-00403869, CSI-CLI-00356520 - CSI-CLI-00356523,
7	CSI-CLI-00356516 - CSI-CLI-00356519, CSI-CLI-00356550 - CSI-CLI-00356555, CSI-CLI-
8	00356484 - CSI-CLI-00356485.
9	IOS v. 12.1: Source Code, CSI-CLI-00403870, CSI-CLI-00356512 - CSI-CLI-00356515,
10	CSI-CLI-00356572 - CSI-CLI-00356575, CSI-CLI-00356490 - CSI-CLI-00356495, CSI-CLI-
11	00356506 - CSI-CLI-00356507.
12	IOS v. 12.2: Source Code, CSI-CLI-00403871, CSI-CLI-00356508 - CSI-CLI-00356511,
13	CSI-CLI-00356506 - CSI-CLI-00356508, CSI-CLI-00356556 - CSI-CLI-00356561, CSI-CLI-
14	00356536 - CSI-CLI-00356537.
15	IOS v. 12.3: Source Code, CSI-CLI-00403872, CSI-CLI-00403874, CSI-CLI-00356524 -
16	CSI-CLI-00356527, CSI-CLI-00356542 - CSI-CLI-00356545.
17	IOS v. 12.4: Source Code, CSI-CLI-00403873, CSI-CLI-00356486 - CSI-CLI-00356489,
18	CSI-CLI-00356705 - CSI-CLI-00356705.
19	IOS v. 15.0: Source Code, CSI-CLI-00054598 – CSI-CLI-00074027, CSI-CLI-00216957 –
20	CSI-CLI-00217612, CSI-CLI-00223197 – CSI-CLI-00224078, CSI-CLI-00226300 – CSI-CLI-
21	00226709, CSI-CLI-00267773 – CSI-CLI-00268938, CSI-CLI-00271385 – CSI-CLI-00271914,
22	CSI-CLI-00274107 – CSI-CLI-00274387, CSI-CLI-00275376 – CSI-CLI-00276837, CSI-CLI-
23	00314732 – CSI-CLI-00314943, CSI-CLI-00316210 – CSI-CLI-00317412, CSI-CLI-00317634 –
24	CSI-CLI-00317847, CSI-CLI-00318351 – CSI-CLI-00318532, CSI-CLI-00319252 – CSI-CLI-
25	00321189, CSI-CLI-00324036 – CSI-CLI-00324389, CSI-CLI-00325497 – CSI-CLI-00325713,
26	CSI-CLI-00332893 – CSI-CLI-00345450, CSI-CLI-00348572 – CSI-CLI-00348689, CSI-CLI-
27	00350066 – CSI-CLI-00351948, CSI-CLI-00356480 - CSI-CLI-00356483, CSI-CLI-00356564 -
28	CSI-CLI-00356567.

1 IOS v. 15.1: Source Code, CSI-CLI-00034689 – CSI-CLI-00054565, CSI-CLI-00223197 – 2 CSI-CLI-00224078, CSI-CLI-00226300 – CSI-CLI-00226414, CSI-CLI-00226710 – CSI-CLI-3 00227953, CSI-CLI-00267773 – CSI-CLI-00268938, CSI-CLI-00314422 – CSI-CLI-00314731, CSI-CLI-00314944 - CSI-CLI-00316209, CSI-CLI-00317413 - CSI-CLI-00317633, CSI-CLI-4 5 00317848 - CSI-CLI-00318350, CSI-CLI-00318533 - CSI-CLI-00319251, CSI-CLI-00319765 -CSI-CLI-00325376, CSI-CLI-00325497 – CSI-CLI-00325713, CSI-CLI-00333135 – CSI-CLI-6 00333809, CSI-CLI-00337967 - CSI-CLI-00338200, CSI-CLI-00338481 - CSI-CLI-00338696, 7 8 CSI-CLI-00338941 – CSI-CLI-00339290, CSI-CLI-00345451 – CSI-CLI-00354832, CSI-CLI-9 00356502 - CSI-CLI-00356505, CSI-CLI-00356532 - CSI-CLI-00356535. 10 IOS v. 15.2: Source Code, CSI-CLI-00024968 – CSI-CLI-00034688, CSI-CLI-00074028 – CSI-CLI-00074113, CSI-CLI-00091773 - CSI-CLI-00091888, CSI-CLI-00098678 - CSI-CLI-11 00099910, CSI-CLI-00101493 - CSI-CLI-00101653, CSI-CLI-00102320 - CSI-CLI-00102428, 13 CSI-CLI-00102615 – CSI-CLI-00102827, CSI-CLI-00104206 – CSI-CLI-00104306, CSI-CLI-00105599 - CSI-CLI-00105706, CSI-CLI-00106165 - CSI-CLI-00106403, CSI-CLI-00107100 -CSI-CLI-00107198, CSI-CLI-00108121 - CSI-CLI-00110637, CSI-CLI-00142102 - CSI-CLI-15 142151, CSI-CLI-00145892 – CSI-CLI-00145912, CSI-CLI-00146305 – CSI-CLI-00146361, 16 17 CSI-CLI-00146494 - CSI-CLI-00146672, CSI-CLI-00150117 - CSI-CLI-00150301, CSI-CLI-00151700 - CSI-CLI-00151794, CSI-CLI-00153045 - CSI-CLI-00154056, CSI-CLI-00154957 -18 19 CSI-CLI-00154967, CSI-CLI-00161254 - CSI-CLI-00161264, CSI-CLI-00162423 - CSI-CLI-00162433, CSI-CLI-00162764 - CSI-CLI-00163054, CSI-CLI-00163297 - CSI-CLI-00163575, 20 21 CSI-CLI-00163892 – CSI-CLI-00163997, CSI-CLI-00167730 – CSI-CLI-00168576, CSI-CLI-00168785 - CSI-CLI-00170897, CSI-CLI-00171210 - CSI-CLI-00171263, CSI-CLI-00173118 -23 CSI-CLI-00173146, CSI-CLI-00227954 – CSI-CLI-00228224, CSI-CLI-00236536 – CSI-CLI-24 00237167, CSI-CLI-00237495 – CSI-CLI-00239781, CSI-CLI-00241096 – CSI-CLI-00248137, CSI-CLI-00276838 - CSI-CLI-00288213, CSI-CLI-00288322 - CSI-CLI-00289855, CSI-CLI-25 26 00292982 - CSI-CLI-00294561, CSI-CLI-00356528 - CSI-CLI-00356531, CSI-CLI-00356697 -27 CSI-CLI-00356700.

1	IOS v. 15.4: Source Code, CSI-CLI-00074114 – CSI-CLI-00091772, CSI-CLI-00091889 -
2	CSI-CLI-00098677, CSI-CLI-00217613 – CSI-CLI-00223196 – CSI-CLI-00224078, CSI-CLI-
3	00224079 – CSI-CLI-00226299, CSI-CLI-00276838 – CSI-CLI-00277169, CSI-CLI-00289856 –
4	CSI-CLI-00310345, CSI-CLI-00325714 – CSI-CLI-00332892, CSI-CLI-00356657 - CSI-CLI-
5	00356660, CSI-CLI-00356653 - CSI-CLI-00356656.
6	IOS XR v. 3.0: Source Code, CSI-CLI-00359263 – CSI-CLI-00362850, CSI-CLI-
7	00356665 - CSI-CLI-00356668, CSI-CLI-00356618 - CSI-CLI-00356621.
8	IOS XR v. 3.2: Source Code, CSI-CLI-00362851 – CSI-CLI-00370474, CSI-CLI-
9	00356661 - CSI-CLI-00356664, CSI-CLI-00356701 - CSI-CLI-00356704.
10	IOS XR v. 3.3: Source Code, CSI-CLI-00370475 – CSI-CLI-00380671, CSI-CLI-
11	00356689 - CSI-CLI-00356692, CSI-CLI-00356642 - CSI-CLI-00356645.
12	IOS XR v. 3.4: Source Code, CSI-CLI-00380672 – CSI-CLI-00389727, CSI-CLI-
13	00356634 - CSI-CLI-00356637, CSI-CLI-00356638 - CSI-CLI-00356641.
14	IOS XR v. 3.5: Source Code, CSI-CLI-00389728 – CSI-CLI-00403864, CSI-CLI-
15	00356685 - CSI-CLI-00356688, CSI-CLI-00356614 - CSI-CLI-00356617.
16	IOS XR v. 4.3: Source Code, CSI-CLI-00099911 – CSI-CLI-00101492, CSI-CLI-
17	00101654 – CSI-CLI-00102319, CSI-CLI-00102429 – CSI-CLI-00102614, CSI-CLI-00102828 –
18	CSI-CLI-00104205, CSI-CLI-00104307 – CSI-CLI-00105598, CSI-CLI-00105707 – CSI-CLI-
19	00106164, CSI-CLI-00106404 – CSI-CLI-00107099, CSI-CLI-00107199 – CSI-CLI-00108120,
20	CSI-CLI-00102732 – CSI-CLI-00127155, CSI-CLI-00137956 – CSI-CLI-00142101, CSI-CLI-
21	00142214 - CSI-CLI-00142101 – CSI-CLI-00143091, CSI-CLI-00143160 – CSI-CLI-00145891,
22	CSI-CLI-00145913 – CSI-CLI-00146304, CSI-CLI-00146362 – CSI-CLI-00146493, CSI-CLI-
23	00146673 – CSI-CLI-00150166, CSI-CLI-00150302 – CSI-CLI-00151699, CSI-CLI-00151795 –
24	CSI-CLI-00153044, CSI-CLI-00154057 – CSI-CLI-00154956, CSI-CLI-00154968 – CSI-CLI-
25	00161253, CSI-CLI-00161265 – CSI-CLI-00162422, CSI-CLI-00162434 – CSI-CLI-00162763,
26	CSI-CLI-00163998 – CSI-CLI-00167729, CSI-CLI-00168577 – CSI-CLI-00168784, CSI-CLI-
27	00170898 – CSI-CLI-00171209, CSI-CLI-00171264 – CSI-CLI-00173117, CSI-CLI-00173147 –
28	

1	CSI-CLI-00173412, CSI-CLI-00356681 - CSI-CLI-00356684, CSI-CLI-00356649 - CSI-CLI-
2	00356652.
3	IOS XR v. 5.2: Source Code, CSI-CLI-00110638 – CSI-CLI-00123731, CSI-CLI-
4	00127156 – CSI-CLI-00137955, CSI-CLI-00142152 – CSI-CLI-00142213, CSI-CLI-00143092 –
5	CSI-CLI-00143159, CSI-CLI-00163055 – CSI-CLI-00163296, CSI-CLI-00163576 – CSI-CLI-
6	00163891, CSI-CLI-00189310 – CSI-CLI-00191711, CSI-CLI-00356626 - CSI-CLI-00356629,
7	CSI-CLI-00356602 - CSI-CLI-00356605.
8	IOS XE v. 2.1: Source Code, CSI-CLI-00229755 – CSI-CLI-00236535, CSI-CLI-
9	00268939 – CSI-CLI-00271384, CSI-CLI-00271915 – CSI-CLI-00274106, CSI-CLI-00274388 –
10	CSI-CLI-00276837, CSI-CLI-00313895 – CSI-CLI-00314421, CSI-CLI-00325377 – CSI-CLI-
11	00325496, CSI-CLI-00356693 - CSI-CLI-00356696, CSI-CLI-00356606 - CSI-CLI-00356609.
12	IOS XE v. 3.5: Source Code, CSI-CLI-00180764 – CSI-CLI-00189309, CSI-CLI-
13	00228225 – CSI-CLI-00229754, CSI-CLI-00236536 – CSI-CLI-00236768, CSI-CLI-00237168 –
14	CSI-CLI-00237494, CSI-CLI-00237785 – CSI-CLI-00237793, CSI-CLI-00239782 – CSI-CLI-
15	00241095, CSI-CLI-00248138 – CSI-CLI-00267772, CSI-CLI-00277170 – CSI-CLI-00277359,
16	CSI-CLI-00288214 – CSI-CLI-00288321, CSI-CLI-00288673 – CSI-CLI-00289121, CSI-CLI-
17	00310346 – CSI-CLI-00313894, CSI-CLI-00356610 - CSI-CLI-00356613, CSI-CLI-00356630 -
18	CSI-CLI-00356633.
19	NX-OS v. 4.0: Source Code, CSI-CLI-00054566 – CSI-CLI-00054597, CSI-CLI-
20	00191712 – CSI-CLI-00192226, CSI-CLI-00202929 – CSI-CLI-00207082, CSI-CLI-00356646 -
21	CSI-CLI-00356648, CSI-CLI-00356622 - CSI-CLI-00356625.
22	NX-OS v. 5.0: Source Code, CSI-CLI-00173413 – CSI-CLI-00176459, CSI-CLI-
23	00196923 – CSI-CLI-00197194, CSI-CLI-00197411 – CSI-CLI-00197600, CSI-CLI-00199585 –
24	CSI-CLI-00200362, CSI-CLI-00201361 – CSI-CLI-00201380, CSI-CLI-00201823 – CSI-CLI-
25	00201848, CSI-CLI-00207083 – CSI-CLI-00212262, CSI-CLI-00216926 – CSI-CLI-00216955,
26	CSI-CLI-00356599 - CSI-CLI-00356601, CSI-CLI-00356677 - CSI-CLI-00356680.
27	NX-OS v. 5.2: Source Code, CSI-CLI-00176460 – CSI-CLI-00178217, CSI-CLI-
28	   00196489 – CSI-CLI-00196922, CSI-CLI-00197195 – CSI-CLI-00197410, CSI-CLI-00197601 -

CSI-CLI-00199584, CSI-CLI-00200363 – CSI-CLI-00201360, CSI-CLI-00201381 – CSI-CLI-00201822, CSI-CLI-00201849 – CSI-CLI-00202928, CSI-CLI-00356596 - CSI-CLI-00356598, CSI-CLI-00356673 - CSI-CLI-00356676.

NX-OS v. 6.2: Source Code, CSI-CLI-00178218 – CSI-CLI-00180763, CSI-CLI-00192227 – CSI-CLI-00196488, CSI-CLI-00212263 – CSI-CLI-00216925, CSI-CLI-00356593 - CSI-CLI-00356595, CSI-CLI-00356669 - CSI-CLI-00356672.

Cisco's discovery efforts in this case are ongoing, and Cisco reserves the right to further supplement this response in light of facts learned during discovery.

## FIRST SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 16:

Subject to and without waiver of its general and specific objections, Cisco further responds as follows:

Based on the information presently available to Cisco, the protectable expressions from Cisco's copyrighted works-in-suit that Arista copied were authored by Cisco, as works made for hire by Cisco employees. *See* 17 U.S.C. § 201(b). Cisco Pursuant to Fed. R. Civ. P. 33(d), Cisco directs Arista to the following documents, from which Arista can gather information regarding the status of its asserted copyright works as works for hire, as well as information regarding the presumptive validity of Cisco's copyrights and the date on which those works were completed:

19	Copyrighted	Copyright Application	Copyright Registration
	Work		
20	IOS 11.0	CSI-CLI-00356391 - CSI-CLI-00356394	CSI-CLI-00356395 - CSI-CLI-00356398
	IOS 11.1	CSI-CLI-00356385 - CSI-CLI-00356388	CSI-CLI-00356588 - CSI-CLI-00356591
21		CSI-CLI-00356500 - CSI-CLI-00356501	CSI-CLI-00356562 - CSI-CLI-00356563
	IOS 11.2	CSI-CLI-00356578 - CSI-CLI-00356581	CSI-CLI-00356496 - CSI-CLI-00356499
22	IOS 11.3	CSI-CLI-00356538 - CSI-CLI-00356541	CSI-CLI-00356446 - CSI-CLI-00356549
		CSI-CLI-00356582 - CSI-CLI-00356587	CSI-CLI-00356576 - CSI-CLI-00356577
23	IOS 12.0	CSI-CLI-00356520 - CSI-CLI-00356523	CSI-CLI-00356516 - CSI-CLI-00356519
		CSI-CLI-00356550 - CSI-CLI-00356555	CSI-CLI-00356484 - CSI-CLI-00356485
24	IOS 12.1	CSI-CLI-00356512 - CSI-CLI-00356515	CSI-CLI-00356572 - CSI-CLI-00356575
۱		CSI-CLI-00356490 - CSI-CLI-00356495	CSI-CLI-00356506 - CSI-CLI-00356507
25	IOS 12.2	CSI-CLI-00356508 - CSI-CLI-00356511	CSI-CLI-00356506 - CSI-CLI-00356508
2.		CSI-CLI-00356556 - CSI-CLI-00356561	CSI-CLI-00356536 - CSI-CLI-00356537
26	IOS 12.3	CSI-CLI-00356524 - CSI-CLI-00356527	CSI-CLI-00356542 - CSI-CLI-00356545
27	IOS 12.4	CSI-CLI-00356486 - CSI-CLI-00356489	CSI-CLI-00356705 - CSI-CLI-00356705
27	IOS 15.0	CSI-CLI-00356480 - CSI-CLI-00356483	CSI-CLI-00356564 - CSI-CLI-00356567
20	IOS 15.1	CSI-CLI-00356502 - CSI-CLI-00356505	CSI-CLI-00356532 - CSI-CLI-00356535
28		· · · · · · · · · · · · · · · · · · ·	

1	Copyrighted Work	Copyright Application	Copyright Registration
2	IOS 15.2	CSI-CLI-00356528 - CSI-CLI-00356531	CSI-CLI-00356697 - CSI-CLI-00356700
	IOS 15.4	CSI-CLI-00356657 - CSI-CLI-00356660	CSI-CLI-00356653 - CSI-CLI-00356656
3	IOS XR 3.0	CSI-CLI-00356665 - CSI-CLI-00356668	CSI-CLI-00356618 - CSI-CLI-00356621
	IOS XR 3.2	CSI-CLI-00356661 - CSI-CLI-00356664	CSI-CLI-00356701 - CSI-CLI-00356704
4	IOS XR 3.3	CSI-CLI-00356689 - CSI-CLI-00356692	CSI-CLI-00356642 - CSI-CLI-00356645
ا ہ	IOX XR 3.4	CSI-CLI-00356634 - CSI-CLI-00356637	CSI-CLI-00356638 - CSI-CLI-00356641
5	IOX XR 3.5	CSI-CLI-00356685 - CSI-CLI-00356688	CSI-CLI-00356614 - CSI-CLI-00356617
	IOS XR 4.3	CSI-CLI-00356681 - CSI-CLI-00356684	CSI-CLI-00356649 - CSI-CLI-00356652
6	IOS XR 5.2	CSI-CLI-00356626 - CSI-CLI-00356629	CSI-CLI-00356602 - CSI-CLI-00356605
7	IOS XE 2.1	CSI-CLI-00356693 - CSI-CLI-00356696	CSI-CLI-00356606 - CSI-CLI-00356609
	IOS XE 3.5	CSI-CLI-00356610 - CSI-CLI-00356613	CSI-CLI-00356630 - CSI-CLI-00356633
Q	NX OS 4.0	CSI-CLI-00356646 - CSI-CLI-00356648	CSI-CLI-00356622 - CSI-CLI-00356625
0	NX OS 5.0	CSI-CLI-00356599 - CSI-CLI-00356601	CSI-CLI-00356677 - CSI-CLI-00356680
9	NX OS 5.2	CSI-CLI-00356596 - CSI-CLI-00356598	CSI-CLI-00356673 - CSI-CLI-00356676
	NX OS 6.2	CSI-CLI-00356593 - CSI-CLI-00356595	CSI-CLI-00356669 - CSI-CLI-00356672

Persons most knowledgeable regarding the creation of those works, including the constituent elements copied by Arista identified by Cisco in response to Arista's interrogatory No. 2, include Kirk Lougheed and Phillip Remaker.

The table below also contains additional information regarding the development of the Cisco command expressions copied by Arista, including identifying the work in which each such command expression first appeared<sup>1</sup> and the date that work was first distributed. This table reflects information currently available to Cisco, and Cisco reserves the right to amend or supplement the information contained in this table as additional information comes to light.

		First Operating	First Distribution
19	Copied Command Expression	System	Date
20	aaa accounting	Cisco IOS 10.3	April 13, 1995
20	aaa accounting dot1x	Cisco IOS 12.4(11)T	November 2006
21	aaa authentication login	Cisco IOS 10.3	April 13, 1995
21	aaa authorization config-commands	Cisco IOS 11.2	October 1996
22	aaa authorization console	Cisco IOS 12.0(6)T	September 20, 1999
	aaa group server radius	Cisco IOS 12.0(5)T	July 27, 1999
23	aaa group server tacacs+	Cisco IOS 12.0(5)T	July 27, 1999
23	address-family	Cisco IOS 12.0(5)T	July 27, 1999
24	aggregate-address	Cisco IOS 10	1993
-	area default-cost	Cisco IOS 10	1993

<sup>&</sup>lt;sup>1</sup> Each command expression in the table was introduced at least as early as the identified "First Operating System." Records pertaining to command expressions in IOS versions earlier than 10.0 were not kept as systematically as for later versions. Cisco is continuing to search for documentation of earlier versions of its operating systems and will supplement the information in this table if necessary.

1		First Operating	First Distribution
1	Copied Command Expression	System	Date
2	area default-cost (OSPFv3)	NX-OS 4.0(1)	April 21, 2008
	area nssa	Cisco IOS 10	1993
3	area nssa (OSPFv3)	NX-OS 4.0(1)	April 21, 2008
	area nssa default-information-originate	Cisco IOS 10	1993
4	area nssa default-information-originate (OSPFv3)	NX-OS 4.0(1)	April 21, 2008
5	area nssa no-summary	Cisco IOS 10	1993
ا د	area nssa translate type7 always	Cisco IOS 12.2(15)T	March 17, 2003
6	area nssa translate type7 always (OSPFv3)	NX-OS 4.0(1)	April 21, 2008
١	area range	Cisco IOS 10	1993
7	area range (OSPFv3)	NX-OS 4.0(1)	April 21, 2008
<i>'</i>	area stub	Cisco IOS 10	1993
8	area stub (OSPFv3)	NX-OS 4.0(1)	April 21, 2008
	arp timeout	Cisco IOS 10	1993
9	Camer roun	Cisco IOS 10	1993
	banner motd	Cisco IOS 10	1993
10		Cisco IOS	
	bfd all-interfaces	12.2(18)SXE	April 11, 2005
11	bgp client-to-client reflection	Cisco IOS 11.1	March 1996
	bgp cluster-id	Cisco IOS 11	<u>September 18, 1995</u>
12	bgp confederation identifier	Cisco IOS 10.3	April 13, 1995
	bgp confederation peers	Cisco IOS 10.3	April 13, 1995
13		Cisco IOS	
14	bgp listen limit	12.2(33)SXH	August 21, 2007
14	DED TOE-HEISHOOT-CHAILSES	Cisco IOS 11.1CC	November 30, 1998
15	bgp redistribute internal	Cisco IOS 12.1	March 30, 2000
13	boot system	ASM/AGS 6	May 28, 1987
16	channel-group	Cisco IOS 11.3MA	February 1998
	class-map type control-plane	NX-OS 4.0(1)	April 21, 2008
17	clear arp-cache	ASM/AGS 5.2	July 20, 1986
	clear counters	Cisco IOS 10	1993 April 21, 2008
18	clear ip arp	NX-OS 4.0(1)	1993
	clear ip bgp clear ip igmp group	Cisco IOS 10 Cisco IOS 10	1993
19	clear ip iginp group	Cisco IOS 10	1993
_	clear ip mfib fastdrop	12.1(8a)EW	January 16, 2002
20	clear ip mroute	Cisco IOS 10	1993
, 1		Cisco IOS 12.0(7)T	December 13, 1999
21	clear ip nat translation	Cisco IOS 11.2	October 1996
$_{22}$		Cisco IOS 11.1	March 1996
<sup></sup>	clear ipv6 neighbors	Cisco IOS 12.2(2)T	May 25, 2001
23		Cisco IOS 12.0(24)S	August 26, 2003
دے	cicui ipvo ospi ioiec spi	Cisco IOS	71424St 20, 2003
24	clear lldp counters	12.2(33)SXH	August 21, 2007
-		Cisco IOS	
25	clear lldp table	12.2(33)SXH	August 21, 2007
		Cisco IOS	
26	clear mac-address-table-dynamic	12.2(2)XT	December 3, 2001
	clear spanning-tree counters	NX-OS 4	April 3, 2008
27		Cisco IOS 10	1993
	clock timezone	Cisco IOS 10	1993
28	control-plane	Cisco IOS 12.2(18)S	
		. , 2/2	

1	Conied Commond Europeaier	First Operating	First Distribution
2	Copied Command Expression  default-information originate (OSPF)	Cisco IOS 10	<b>Date</b> 1993
	default-information originate (OSPFv3)	Cisco IOS 15.1(3)S	July 25, 2011
3	default-metric (OSPF)	Cisco IOS 19.1(3)3	1993
	default-metric (OSPFv3)	Cisco IOS 12.2(15)T	March 17, 2003
4	distance bgp	Cisco IOS 10	1993
5	domain-id	Cisco IOS 12.1(5)T	October 3, 2000
5		Cisco IOS	
6	dot1x max-reauth-req	12.2(18)SE	February 2004
٥	dot1x pae authenticator	Cisco IOS 12.3(11)T	September 20, 2004
7		Cisco IOS	
1	dot1x port-control	12.1(6)EA2	December 19, 2001
8		Cisco IOS	
	dot1x reauthentication	12.2(14)SX	April 14, 2003
9		Cisco IOS	A (11 2002
	dot1x system-auth-control	12.3(2)XA	August 11, 2003
10	dot1v timeout quiet noried	Cisco IOS	April 14, 2002
1.1	dot1x timeout quiet-period	12.2(14)SX Cisco IOS	April 14, 2003
11	dot1x timeout reauth-period	12.2(25)SEC	May 3, 2006
12	dottx timeout readur-period	Cisco IOS	Way 3, 2000
12	dot1x timeout tx-period	12.2(14)SX	April 14, 2003
13		Cisco IOS 11	September 18, 1995
13	erase startup config	Cisco IOS 11	September 18, 1995
14	Citate Statemp Coming	Cisco IOS	
	errdisable detect cause link-flap	12.2(14)SX	April 14, 2003
15		Cisco IOS	
	errdisable recovery cause	12.2(14)SX	April 14, 2003
16		Cisco IOS	
17	errdisable recovery interval	12.2(14)SX	April 14, 2003
17		Cisco IOS	
18	flowcontrol receive	12.2(14)SX	April 14, 2003
10	flowsontrol and	Cisco IOS	Amril 14, 2002
19	flowcontrol send interface ethernet	12.2(14)SX NX-OS 4	April 14, 2003 April 3, 2008
	interface ethernet	Cisco IOS 10	1993
20	interface port-channel	Cisco IOS 10	December 3, 1998
	interface vlan	Cisco IOS 11.1CA  Cisco IOS 11.3(5)T	August 13, 1998
21	ip access-group	Release 7.0/7.1	April 24, 1989
	ip access-list	Cisco IOS 11.2	October 1996
22	ip access-list standard	Cisco IOS 11.2	October 1996
23	ip address	Release 7.0/7.1	April 24, 1989
23	ip as-path access-list	Cisco IOS 10	1993
24	ip community-list expanded	Cisco IOS 10.3	April 13, 1995
-	ip community-list standard	Cisco IOS 10.3	April 13, 1995
25		Cisco IOS 12.1	March 30, 2000
	ip dhcp smart-relay global	NX-OS 5.2(1)	July 29, 2011
26		Cisco IOS	4 1111 2007
	ip dhcp snooping	12.2(18)SXE	April 11, 2005
27	in then encoping information artism	Cisco IOS	April 11 2005
20	ip dhcp snooping information option ip dhcp snooping vlan	12.2(18)SXE Cisco IOS	April 11, 2005 April 11, 2005
28	TP UNCP SHOOPING VIAII	1 C15C0 1O3	Apin 11, 2003

1		First Operating	First Distribution
2	Copied Command Expression	System	Date
2		12.2(18)SXE	
3	ip domain lookup	Cisco IOS 10	1993
3	ip domain-name	Cisco IOS 10	1993
4	ip extcommunity-list expanded	Cisco IOS 12.1	March 30, 2000
.	ip extcommunity-list standard	Cisco IOS 12.1	March 30, 2000
5	ip helper-address	Release 7.0/7.1	April 24, 1989
	ip host	Release 8.0	November 7, 1989
6	ip http client source-interface	Cisco IOS 12.3(7)T	March 1, 2004
	ip icmp redirect	Cisco IOS 12	September 1998
7		Cisco IOS 12.1	March 30, 2000
	ip igmp last-member-query-interval	Cisco IOS 12.1	March 30, 2000
8		Cisco IOS 10.2	October 4, 1994
	ip igmp query-max-response-time	Cisco IOS 11.1	March 1996
9		Cisco IOS	A :1 2001
10	ip igmp snooping	12.0(5.2)WC(1)	April 2001
10		Cisco IOS 12.2(14)SX	Amril 14, 2002
11	ip igmp snooping querier		April 14, 2003
11	ip igmp snooping vlan	Cisco IOS 12.0(5.2)WC(1)	April 2001
12	ID Ignip shooping vian	Cisco IOS	April 2001
12	ip igmp snooping vlan immediate-leave	12.0(5.2)WC(1)	April 2001
13	ID 1911D SHOODING VIAH HIHHEdrate-leave	Cisco IOS	April 2001
13	ip igmp snooping vlan mrouter	12.0(5.2)WC(1)	April 2001
14	ip ignip shooping vian infoater	Cisco IOS	740111 2001
	ip igmp snooping vlan static	12.0(5.2)WC(1)	April 2001
15	ip igmp startup-query-count	NX-OS 4.0(1)	April 21, 2008
	in igmn startun-query-interval	NX-OS 4.0(1)	April 21, 2008
16	ip igmp static-group	Cisco IOS 11.2	October 1996
	ip igmp version	Cisco IOS 11.1	March 1996
17	ip load-sharing	Cisco IOS 11.2GS	July 17, 1998
1.0		Cisco IOS	
18	ip local-proxy-arp	12.1(5c)EX	March 13, 2001
10	ip msdp cache-sa-state	Cisco IOS 12.0(7)T	December 13, 1999
19	ip msdp cache-sa-state ip msdp default-peer	Cisco IOS 12.0(7)T	December 13, 1999
20	ip msdp description	Cisco IOS 12.0(7)T	December 13, 1999
20	ip msdp group-limit	NX-OS 4.0(1)	April 21, 2008
21		Cisco IOS	
	ip msdp keepalive	12.1(8a)E4	September 5, 2001
22	ip msdp mesh-group	Cisco IOS 12.0(7)T	December 13, 1999
	ip msdp originator-id	Cisco IOS 12.0(7)T	December 13, 1999
23	ip msdp peer	Cisco IOS 12.0(7)T	December 13, 1999
	ip msdp sa-filter in	Cisco IOS 12.0(7)T	December 13, 1999
24	ip msdp sa-filter out	Cisco IOS 12.0(7)T	December 13, 1999
	ip msdp sa-limit	Cisco IOS 12.1(7)	January 30, 2001
25	ip msdp shutdown	<u>Cisco IOS 12.0(7)T</u>	December 13, 1999
_		Cisco IOS	
26	ip msdp timer	12.1(8a)E4	September 5, 2001
27	ip multicast boundary	Cisco IOS 11.1	March 1996
21	ip multicast-routing	Cisco IOS 10	1993 Santambar 14, 1090
20	ip name-server	Release 8.0	September 14, 1989 October 1006
40 I	ip nat pool	Cisco IOS 11.2	October 1996

			T1 . D1 . 17 . 1
1	Copied Command Expression	First Operating System	First Distribution Date
2	ip nat translation tcp-timeout	Cisco IOS 11.2	October 1996
		Cisco IOS 11.2  Cisco IOS 11.2	October 1996
3	ip nat translation udp-timeout ip ospf authentication		September 1998
		Cisco IOS 12	-
4	ip ospf authentication-key	Cisco IOS 10	1993
		Cisco IOS	A 1111 2005
5	ip ospf bfd	12.2(18)SXE	April 11, 2005
	ip ospf cost	Cisco IOS 10	1993
6	ip ospf dead-interval	Cisco IOS 10	1993
	ip ospf hello-interval	Cisco IOS 10	1993
7	ip ospf message-digest-key	Cisco IOS 11	September 18, 1995
	ip ospf name-lookup	Cisco IOS 10	1993
8	ip ospf network	Cisco IOS 10	1993
	ip ospf priority	Cisco IOS 10	1993
9	ip ospf retransmit-interval	Cisco IOS 10	1993
		Cisco IOS	
10	ip ospf shutdown	12.2(33)SRC	January 14, 2008
	ip ospf transmit-delay	Cisco IOS 10	1993
11	ip pim anycast-rp	NX-OS 4.0(1)	April 21, 2008
	ip pim bfd	NX-OS 5.0(2)	May 24, 2010
12	ip pim bfd-instance	NX-OS 5.0(2)	May 24, 2010
	ip pim bsr-border	Cisco IOS 11.3T	December 15, 1997
13	ip pim bsr-candidate	Cisco IOS 11.3T	December 15, 1997
	ip pim dr-priority	Cisco IOS 12.1(2)T	April 26, 2000
14	ip pim log-neighbor-changes	Cisco IOS 12.4(24)T	February 2009
	ip pim neighbor-filter	Cisco IOS 11.3	December 1997
15	ip pim query-interval	Cisco IOS 10	1993
			December 13, 1999 -
16	ip pim register-source	Cisco IOS 12.0(8)T	April 26, 2005
	ip pim rp-address	Cisco IOS 10.2	October 4, 1994
17	ip pim rp-candidate	Cisco IOS 11.3T	December 15, 1997
	ip pim sparse-mode	Cisco IOS 10	1993
19	in nim ent_threshold	Cisco IOS 11.1	March 1996
	ip pim spt-threshold group-list	Cisco IOS 11.1	March 1996
19	ip pim ssm range	Cisco IOS 12.1(3)T	July 27, 2000
	ip prefix-list	Cisco IOS 12.0(3)T	January 21, 1999
20	ip protocol	Cisco IOS 12.0(23)S	August 26, 2003
<b>.</b> .	ip proxy-arp	Release 8.0	September 14, 1989
21	ip radius source-interface	Cisco IOS 11.3	December 1997
<u> </u>	ip rip v2-broadcast	Cisco IOS 11.3  Cisco IOS 12.1(5)T	October 3, 2000
22		Release 8.0	September 14, 1989
<u> </u>	ip route		
23	ip routing	Release 7.0/7.1	April 24, 1989
ا ۱	ip tacacs source-interface	Cisco IOS 10	1993
24	ip-community-list standard	Cisco IOS 10.3	April 13, 1995
ا ء	ipv6 access-list	Cisco IOS 12.2(2)T	May 25, 2001
25	ipv6 address	Cisco IOS 12.2(2)T	May 25, 2001
ر مدا	ipv6 dhcp relay destination	Cisco IOS 12.3(11)T	September 20, 2004
26	ipv6 enable	Cisco IOS 12.2(2)T	May 25, 2001
27	ipv6 host	Cisco IOS 12.2(2)T	May 25, 2001
41		Cisco IOS	
ر موا	ipv6 ipv6 access-group	12.4(9)XG	November 20, 2006
28	ipv6 nd managed-config-flag	Cisco IOS 12.2(2)T	May 25, 2001

1		First Operating	First Distribution
	Copied Command Expression	System	Date
2	ipv6 nd ns-interval	Cisco IOS 12.2(2)T	May 25, 2001
2	ipv6 nd other-config-flag	Cisco IOS 12.2(2)T	May 25, 2001
3	ipv6 nd prefix	Cisco IOS 12.2(13)T	November 25, 2002
4	ipv6 nd ra interval	Cisco IOS 12.4(2)T	June 27, 2005
4	ipv6 nd ra lifetime	Cisco IOS 12.4(2)T	June 27, 2005
5	ipv6 nd ra suppress	Cisco IOS 12.4(2)T	June 27, 2005
5	ipv6 nd reachable-time	Cisco IOS 12.2(2)T	May 25, 2001
6	ipv6 nd router-preference	Cisco IOS 12.4(2)T	June 27, 2005
	ipv6 neighbor	Cisco IOS 12.2(8)T	February 25, 2002
7		Cisco IOS 12.0(24)S	August 26, 2003
	ipv6 ospf cost	Cisco IOS 12.0(24)S	August 26, 2003
8		Cisco IOS 12.0(24)S	August 26, 2003
	ipv6 ospf hello-interval	Cisco IOS 12.0(24)S	August 26, 2003
9	ipv6 ospf network	Cisco IOS 12.0(24)S	August 26, 2003
	ipv6 ospf priority	Cisco IOS 12.0(24)S	August 26, 2003
10	ipv6 ospf retransmit-interval	Cisco IOS 12.0(24)S	August 26, 2003
1.1	ipv6 ospf transmit-delay	Cisco IOS 12.0(24)S	August 26, 2003
11	ipv6 prefix-list	Cisco IOS 12.2(2)T	May 25, 2001
12	ipv6 route	Cisco IOS 12.2(2)T	May 25, 2001
12	TRY CTOWN CT COR	Cisco IOS 12.0(24)S	August 26, 2003
13	ipv6 unicast-routing	Cisco IOS 12.2(2)T	May 25, 2001
13	isis hello-interval	Cisco IOS 10	1993
14	isis hello-multiplier	Cisco IOS 10	1993 March 1006
1.	1515 15p-11ttel val	Cisco IOS 11.1	March 1996 1993
15	isis metric isis passive	Cisco IOS 10 NX-OS 4.0(1)	April 21, 2008
	isis passive-interface	NX-OS 6.2(2)	August 22, 2013
16	isis priority	Cisco IOS 10	1993
	is-type	Cisco IOS 10 Cisco IOS 10.3	April 13, 1995
17	15-type	Cisco IOS  Cisco IOS	740111 13, 1773
1.0	lacp port-priority	12.1(13)EW	December 23, 2002
18		Cisco IOS	<b>Decomes 23, 2002</b>
10	lacp rate	12.2(18)SXF2	January 20, 2006
		Cisco IOS	
20	lacp system-priority	12.1(13)EW	December 23, 2002
20	link state group	Cisco IOS 15.1(1)S	November 23, 2010
21	link state track	Cisco IOS 15.1(1)S	November 23, 2010
		Cisco IOS	
22	lldp holdtime	12.2(37)SE	August 8, 2007
		Cisco IOS	
23	Ildp receive	12.2(33)SXH	August 21, 2007
	11.1	Cisco IOS	
24	lldp reinit	12.2(37)SE	August 8, 2007
25	Ilda gun	Cisco IOS	August 9, 2007
25	lldp run	12.2(37)SE	August 8, 2007
26	lldp timer	Cisco IOS 12.2(37)SE	August 8, 2007
۷٥	liap timer	Cisco IOS	August 0, 2007
27	lldp tlv-select	12.2(37)SE	August 8, 2007
- '	TIMP IT BOICOL	Cisco IOS	1145451 0, 2007
28	lldp transmit	12.2(33)SXH	August 21, 2007
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1		First Operating	First Distribution
2	Copied Command Expression	System	Date
	load-interval	Cisco IOS 10.3	April 13, 1995
3	log-adjacency-changes	Cisco IOS 12.1	March 30, 2000
	log-adjacency-changes (IS-IS)	NX-OS 4.0(1)	April 21, 2008
4	log-adjacency-changes (OSPFv3)	Cisco IOS 15.1(3)S	July 25, 2011
	logging host	Cisco IOS 10	1993
5	mac access-group	Cisco IOS 12.0(32)S	January 18, 2006
	mac access-list	NX-OS 4.0(1)	April 21, 2008
6	mac-address	Cisco IOS 10	1993
7	mac-address-table aging-time	Cisco IOS 12.0(7)XE	December 27, 1999
′		Cisco IOS	
8	mac-address-table static	12.0(7)XE	December 27, 1999
	max-connections	Cisco IOS 12.2(8)T	February 25, 2002
9	maximum-paths	Cisco IOS 12.2(8)T	February 25, 2002
	maximum-paths (OSPFv3)	Cisco IOS 15.1(3)S	July 25, 2011
10	neighbor activate	Cisco IOS 11	September 18, 1995
	neighbor allowas-in	Cisco IOS 12.0(7)T	December 13, 1999
11	neighbor default-originate	Cisco IOS 11	September 18, 1995
	neighbor description	Cisco IOS 11.3	December 1997
12	neighbor ebgp-multihop	Cisco IOS 10	1993
10		Cisco IOS	
13	neighbor fall-over bfd	12.2(33)SRA	June 19, 2006
1.4	neighbor local-as	Cisco IOS 12.0(5)S	July 13, 1999
14	neighbor next-hop-self	Cisco IOS 10	1993
15	neighbor password	Cisco IOS 11	September 18, 1995
13	neighbor peer-group (assigning members)	Cisco IOS 11	September 18, 1995
16	neighbor peer-group (creating)	Cisco IOS 11	September 18, 1995
10	neighbor remote-as	Cisco IOS 10	1993
17	neighbor remove-private-as	Cisco IOS 10.3	April 13, 1995
	neighbor route-map	Cisco IOS 10	1993
18	neighbor route-reflector-client	Cisco IOS 11.1	March 1996
	neighbor send-community	Cisco IOS 10.3	April 13, 1995
19	neighbor shutdown	Cisco IOS 12	September 1998
	neighbor soft-reconfiguration	Cisco IOS 11.2	October 1996
20	neighbor timers	Cisco IOS 12	September 1998
	neighbor transport connection-mode	Cisco IOS 12.4	May 2, 2005
21	neighbor update-source	Cisco IOS 10 Cisco IOS 10	1993 1993
22	neighbor weight	Cisco IOS 10	1993
22	network area		
22	no snmp-server	Release 7.0/7.1	April 24, 1989 1993
23	ntp authenticate	Cisco IOS 10 Cisco IOS 10	1993
24	ntp authentication-key		
24	ntp server	Cisco IOS 10	1993 1993
25	ntp source	Cisco IOS 10	1993
۷۵	ntp trusted-key	Cisco IOS 10	
26	passive-interface (OSPEy2)	Release 7.0/7.1	April 24, 1989
۷٥ ا	passive-interface (OSPFv3)	Cisco IOS 15.1(3)S	July 25, 2011
27	passive-interface default	Cisco IOS 12	September 1998
28	policy-map type control-plane	NX-OS 4.0(1)	April 21, 2008 April 3, 2008
	policy-map type gos port-channel load-balance	NX-OS 4 Cisco IOS	April 3, 2008 April 14, 2003
	POLI-CHAINEL IOAU-UAIAHCE	1 (12(0) 1(0)	14, 2003

1		First Operating	First Distribution
_	Copied Command Expression	System	Date
2		12.2(14)SX	
3		Cisco IOS	
3	port-channel min-links	12.2(18)SXF	September 12, 2005
4	priority-flow-control mode	NX-OS 5.1(1)	October 25, 2010
7		Cisco IOS	
5	private-vlan	12.2(14)SX	April 14, 2003
		Cisco IOS	A 1114 2002
6	private-vlan mapping	12.2(14)SX	April 14, 2003
	ptp domain ptp priority1	NX-OS 5.2(1) NX-OS 5.2(1)	July 29, 2011 July 29, 2011
7	ptp priority?	NX-OS 5.2(1)	July 29, 2011 July 29, 2011
		NX-OS 5.2(1)	July 29, 2011 July 29, 2011
8	radius-server deadtime	Cisco IOS 11.1	March 1996
0	radius-server host	Cisco IOS 11.1	March 1996
9	radius-server host	Cisco IOS 11.1	March 1996
10	radius-server retransmit	Cisco IOS 11.1	March 1996
10	radius-server timeout	Cisco IOS 11.1	March 1996
11		Cisco IOS	
	redundancy force-switchover	12.0(16)ST	March 29, 2001
12	route-map	Cisco IOS 10	1993
	router bgp	Release 8.0	September 14, 1989
13	router isis	Cisco IOS 10	1993
	router ospf	Cisco IOS 10	1993
14	100001110	Cisco IOS 12.2(2)T	May 25, 2001
15	router-id	Cisco IOS 12.0(1)T	November 2, 1998
13	router-id (OSPFv3)	Cisco IOS 15.1(3)S	July 25, 2011
16	routing-context vrf	NX-OS 4.0(1)	April 21, 2008
10	service sequence-numbers	Cisco IOS 12	September 1998
17	set-overload-bit show aaa method-lists	Cisco IOS 11.2 Cisco IOS 12.2(8)T	October 1996 February 25, 2002
	snow aaa memod-nsts	Cisco IOS 12.2(8)1	February 23, 2002
18	show aaa sessions	15.0(2)EX	June 22, 2013
	show arp	ASM/AGS 5.2	July 20, 1986
19	show bfd neighbors	Cisco IOS 12.0(31)S	
20	show clock	Cisco IOS 10	1993
20		Cisco IOS	
21	show dot1q-tunnel	12.2(14)SX	April 14, 2003
_1		Cisco IOS	
22	show dot1x	12.1(11)AX	May 2003
		Cisco IOS	
23	show dot1x all summary	12.1(14)EA1	July 25, 2003
		Cisco IOS	34 1 2006
24	show dot1x statistics	12.2(25)SEE	May 1, 2006
ر ا ا م	show environment all	Cisco IOS 12.2(20)S2	March 16, 2004
25	SHOW CHVIIOHHICH AH	Cisco IOS	1V1a1CII 10, 2004
26	show environment cooling	12.2(14)SX	April 14, 2003
۷٥	show environment power	NX-OS 4.2(1)	August 10, 2009
27	ELLE CALLED PO II CA	Cisco IOS	
- '	show environment temperature	12.2(14)SX	April 14, 2003
28		Cisco IOS	December 27, 1999
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1		First Operating	First Distribution
	Copied Command Expression	System	Date
2		12.0(7)XE	
3	show hostname	NX-OS 4.0(1)	April 21, 2008
3	show hosts	ASM/AGS 5.2	July 20, 1986
4	show interfaces	ASM/AGS 5.2	July 20, 1986
7		Cisco IOS	
5	show interfaces capabilities	12.2(14)SX	April 14, 2003
		Cisco IOS	
6	show interfaces description	12.2(14)SX	April 14, 2003
		Cisco IOS	
7	show interfaces flowcontrol	12.2(14)SX	April 14, 2003
		Cisco IOS	
8	show interfaces private-vlan mapping	12.2(14)SX	April 14, 2003
		Cisco IOS	114 2002
9	show interfaces status	12.2(14)SX	April 14, 2003
	ahovy interferon avaitable and	Cisco IOS	Amril 14 2002
10	show interfaces switchport	12.2(14)SX Cisco IOS	April 14, 2003
	show interfered assessitation out health		Santambar 12, 2005
11	show interfaces switchport backup	12.2(18)SXF Cisco IOS	September 12, 2005
12	show interfaces transceiver	12.2(17d)SXB2	July 21, 2004
12	show interfaces transcerver	Cisco IOS	July 21, 2004
12	show interfaces trunk	12.2(14)SX	April 14, 2003
13	show inventory	Cisco IOS 12.3(4)T	November 3, 2003
14	show ip access-lists	Cisco IOS 10.3	April 13, 1995
17	show ip arp	Cisco IOS 9	December 1992
15	show ip bgp	Cisco IOS 10	1993
10	show ip bgp community	Cisco IOS 10.3	April 13, 1995
16		Cisco IOS 10	1993
	show ip bgp paths	Cisco IOS 10	1993
17	show ip bgp peer-group	Cisco IOS 11	September 18, 1995
	show in hon regevn	Cisco IOS 10	1993
18		Cisco IOS 10	1993
	show ip bgp summary show ip community-list	Cisco IOS 11	September 18, 1995
19		Cisco IOS	
20	show ip dhcp snooping	12.2(18)SXE	April 11, 2005
20	show ip extcommunity-list	Cisco IOS 12.1	March 30, 2000
21	show ip helper-address	Cisco IOS 12.3(2)T	July 28, 2003
21	show ip igmp groups	Cisco IOS 10	1993
22	show ip igmp interface	Cisco IOS 10	1993
		Cisco IOS	
23	show ip igmp snooping	12.0(5.2)WC(1)	April 2001
	show ip igmp snooping groups	Cisco IOS 12.4(15)T	June 29, 2007
24		Cisco IOS	
	show ip igmp snooping mrouter	12.0(5.2)WC(1)	April 2001
25	show ip igmp snooping querier	NX-OS 4.0(1)	April 21, 2008
	show ip interface	Release 7.0/7.1	April 24, 1989
26		Cisco IOS 10	1993
	show ip mfib	Cisco IOS XE 2.1	May 5, 2008
27		Cisco IOS 10	1993
	show ip mroute count	Cisco IOS 10	1993
28	show ip msdp mesh-group	NX-OS 4.0(1)	April 21, 2008

1	Copied Command Expression	First Operating System	First Distribution Date
2	show ip msdp peer	Cisco IOS 12.0(7)T	December 13, 1999
H	show ip msdp rpf-peer	Cisco IOS 12.3(4)T	November 3, 2003
3	show ip msdp sa-cache	Cisco IOS 12.0(7)T	December 13, 1999
ľ	show ip msdp summary	Cisco IOS 12.0(7)T	December 13, 1999
4	show ip nat translations	Cisco IOS 11.2	October 1996
_	show ip ospf	Cisco IOS 10	1993
5	show ip ospf border-routers	Cisco IOS 10	1993
	show ip ospf database database-summary	Cisco IOS 11	September 18, 1995
6	show ip ospf interface	Cisco IOS 10	1993
7	show ip ospf neighbor	Cisco IOS 10	1993
′ [	show ip ospf request-list	Cisco IOS 10.2	October 4, 1994
8	show ip ospf retransmission-list	Cisco IOS 10.2	October 4, 1994
0	show ip pim interface	Cisco IOS 10	1993
9	show ip pim neighbor	Cisco IOS 10	1993
	show ip pim rp	Cisco IOS 10.2	October 4, 1994
10	show ip pim rp-hash	Cisco IOS 11.3T	December 15, 1997
П	show ip prefix-list	Cisco IOS 12	September 1998
11	show ip rip database	Cisco IOS 12.0(6)T	September 20, 1999
ľ	show ip rip neighbors	Cisco IOS XE 3.3	March 30, 2011
12	show ip route	Cisco IOS 9.2	1992-1995
	show ip route summary	Cisco IOS 10	1993
13	show ip route tag	Cisco IOS 15.2(2)S	March 30, 2012
	show ipv6 access-list	Cisco IOS 12.2(2)T	May 25, 2001
14	show ipv6 bgp	NX-OS 4.0(1)	April 21, 2008
15	show ipv6 bgp community	NX-OS 4.0(1)	April 21, 2008
13	show ipv6 bgp neighbors	NX-OS 4.0(1)	April 21, 2008
16	show ipv6 bgp summary	NX-OS 4.0(1)	April 21, 2008
10	show ipv6 interface	Cisco IOS 12.2(2)T	May 25, 2001
17	show ipv6 neighbors	Cisco IOS 12.2(2)T	May 25, 2001
ŀ	show ipv6 ospf	Cisco IOS 12.0(24)S	
18	show ipv6 ospf border-routers	Cisco IOS 12.0(24)S	
H	show ipv6 ospf interface	Cisco IOS 12.0(24)S	August 26, 2003
19	show ipv6 ospf neighbor	Cisco IOS 12.0(24)S	August 26, 2003
H	show ipv6 prefix-list	Cisco IOS 12.2(2)T	May 25, 2001
20	show ipv6 route	Cisco IOS 12.2(2)T	May 25, 2001
<u>.</u>	show ipv6 route summary	Cisco IOS 12.2(2)T	May 25, 2001
21	show ipv6 route tag	Cisco IOS 15.2(2)S	March 30, 2012 1993
22	show isis database show isis interface	Cisco IOS 10 NX-OS 4.0(1)	April 21, 2008
~~ H	show isis topology	Cisco IOS 12.0(26)S	August 26, 2003
23	show lacp counters	NX-OS 4	April 3, 2008
23 H	show lacp interface	NX-OS 4	April 3, 2008
24	show lacp meighbor	NX-OS 4	April 3, 2008
ľ	show link state group	Cisco IOS 15.1(1)S	November 23, 2010
25	The state of the s	Cisco IOS	
	show lldp	12.2(33)SXH	August 21, 2007
26		Cisco IOS	
<u> </u>	show lldp neighbors	12.2(33)SXH	August 21, 2007
27		Cisco IOS	
28	show lldp traffic	12.2(33)SXH	August 21, 2007
	show mac access-lists	NX-OS 4.0(1)	April 21, 2008

1		First Operating	First Distribution
1	Copied Command Expression	System	Date
2		Cisco IOS	
	show mac-address-table	11.2(8)SA3	1997- 2002
3		Cisco IOS	
4	show mac-address-table aging time	11.2(8)SA3	1997- 2002
4		Cisco IOS	
5	show mac-address-table count	11.2(8)SA3	1997- 2002
5		Cisco IOS	
6	show module	12.2(14)SX	April 14, 2003
		Cisco IOS	A 31.14 2002
7	show monitor session	12.2(14)SX	April 14, 2003
	show ntp associations	Cisco IOS 10	1993 1993
8	show ntp status show policy-map control-plane	Cisco IOS 10 Cisco IOS 12.2(18)S	August 21, 2003
	1 1 1	Cisco IOS 12.2(18)5 Cisco IOS 12.0(5)T	July 27, 1999
9	show policy-map interface control-plane	NX-OS 6.2(2)	August 22, 2013
10		NX-OS 4	April 3, 2008
10	show port-channel traffic	NX-OS 4	April 3, 2008
11	DOLL PORT PROPERTY SERVICE	Cisco IOS	
	show port-security	12.2(14)SX	April 14, 2003
12		Cisco IOS	
	show port-security address	12.2(18)SXE	April 11, 2005
13		Cisco IOS	
	show port-security interface	12.2(14)SX	April 14, 2003
14		Cisco IOS 10.3	April 13, 1995
1.5	show ptp clock	NX-OS 5.2(1)	July 29, 2011
15	STO W PED PERFOR	NX-OS 5.2(1)	July 29, 2011
16	show ptp time-property	NX-OS 5.2(1) Cisco IOS	July 29, 2011
10	show gos maps	12.1(8a)EW	January 16, 2002
17	show dos maps show radius	NX-OS 4.0(1)	April 21, 2008
	show redundancy states	Cisco IOS 12.2(20)S	October 29, 2003
18	aharri malaad	Cisco IOS 11.2	October 1996
	show role show route-map	NX-OS 4.0(1)	April 21, 2008
19	show route-map	Cisco IOS 10	1993
20	show snmp	Cisco IOS 10	1993
20	show snmp chassis	Cisco IOS 12.4(12)T	June 29, 2007
21	show snmp community	Cisco IOS 12.4(12)T	June 29, 2007
<u>-1</u>	show snmp contact	Cisco IOS 12.4(12)T	June 29, 2007
22	show snmp engineID	Cisco IOS 12.0(3)T	January 21, 1999
_	show snmp group	Cisco IOS 12.0(3)T	January 21, 1999
23	show snmp host	Cisco IOS 12.4(12)T	June 29, 2007
	show snmp location	Cisco IOS 12.4(12)T	June 29, 2007
24		Cisco IOS 12.2(2)T	May 25, 2001
ا ء ا	show snmp source-interface show snmp trap	NX-OS 4.2(1) NX-OS 4.0(1)	August 10, 2009 April 21, 2008
25	show snmp user	Cisco IOS 12.0(3)T	January 21, 1999
26	show snmp view	Cisco IOS 12.4(2)T	June 27, 2005
۷ ا	show spanning-tree	Cisco IOS 12.4(2)T	November 2, 1998
27	show spanning-tree blockedports	NX-OS 4	April 3, 2008
	show spanning-tree bridge	NX-OS 4	April 3, 2008
28		NX-OS 4	April 3, 2008
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1		First Operating	First Distribution
2	Copied Command Expression	System	Date
2		Cisco IOS	
3	show spanning-tree mst	12.2(14)SX	April 14, 2003
	show spanning-tree mst configuration	NX-OS 4	April 3, 2008
4	show spanning-tree mst interface show spanning-tree root	NX-OS 4 NX-OS 4	April 3, 2008 April 3, 2008
	Show spanning-tree root	Cisco IOS	April 3, 2008
5	show storm-control	12.2(2)XT	December 3, 2001
	show tacacs	Cisco IOS 11.2	October 1996
6	show track	Cisco IOS 12.2(15)T	March 17, 2003
7	show user-account	NX-OS 4.0(1)	April 21, 2008
′	show users	ASM/AGS 5.2	July 20, 1986
8	show version	Cisco IOS 9	December 1992
		Cisco IOS	
9	show vlan	12.2(14)SX	April 14, 2003
		Cisco IOS	
10	show vlan internal usage	12.2(14)SX	April 14, 2003
	ahann alam mainata alam	Cisco IOS	A: 1 1 4 2002
11	show vlan private-vlan show vlan summary	12.2(14)SX NX-OS 4	April 14, 2003 April 3, 2008
12	Show vian summary	Cisco IOS	April 5, 2008
12	show vrf	12.2(33)SRB	February 28, 2007
13	SHOW VII	Cisco IOS	1 corum y 20, 2007
13	show vrrp	12.0(18)ST	June 4, 2001
14	snmp trap link-status	Cisco IOS 10	1993
	snmp-server chassis-id	Cisco IOS 10	1993
15	snmp-server community	Release 7.0/7.1	April 24, 1989
	snmp-server contact	Cisco IOS 10	1993
16	Shirip server endore trups	Cisco IOS 10.3	April 13, 1995
17	snmp-server engineID local	Cisco IOS 12.0(3)T	January 21, 1999
1/	snmp-server engineID remote	Cisco IOS 12.0(3)T	January 21, 1999
18	snmp-server group	Cisco IOS 11.(3)T	December 15, 1997
	snmp-server host	Release 7.0/7.1	April 24, 1989
19	snmp-server location	Cisco IOS 10	1993
	snmp-server source-interface	Cisco IOS 12.2(18)SXB2	March 2004- September 2006
20	snmp-server user	Cisco IOS 12.0(3)T	January 21, 1999
	snmp-server view	Cisco IOS 12.0(3)1	1993
21	Shing-server view	Cisco IOS TO	1773
22	spanning-tree bpdufilter	12.2(14)SX	April 14, 2003
22		Cisco IOS	
23	spanning-tree bpduguard	12.2(14)SX	April 14, 2003
23		Cisco IOS	
24	spanning-tree bridge assurance	12.2(33)SXI	November 11, 2008
- '		Cisco IOS	
25	spanning-tree cost	12.0(7)XE	December 27, 1999
		Cisco IOS	1 11 2000
26	spanning-tree guard	12.2(14)SX	April 14, 2003
	an anning two link towns	Cisco IOS	A mail 14, 2002
27	spanning-tree link-type	12.2(14)SX	April 14, 2003
20	spanning-tree loopguard default	Cisco IOS 12.2(14)SX	April 14, 2003
28	Spanning-tice loopguaru uctault	12.2(17)3/1	Apin 14, 2003

1		First Operating	First Distribution
2	Copied Command Expression	System	Date
	spanning-tree mode	Cisco IOS 12.2(14)SX	April 14, 2003
3	spanning-tree mst configuration	Cisco IOS 12.2(14)SX	April 14, 2003
4	spanning-tree portfast bpdufilter default	Cisco IOS 12.2(14)SX	April 14, 2003
5		Cisco IOS	
6	spanning-tree portfast bpduguard default	12.2(14)SX Cisco IOS	April 14, 2003
7	spanning-tree port-priority	12.0(7)XE Cisco IOS	December 27, 1999
8	spanning-tree transmit hold-count	12.2(18)SXF Cisco IOS	September 12, 2005
9	spanning-tree vlan	12.0(7)XE Cisco IOS 10.3	December 27, 1999 April 13, 1995
	spf-interval	NX-OS 4.0(1)	April 13, 1995 April 21, 2008
10	statistics per-entry	Cisco IOS	April 21, 2008
11	storm-control	12.2(2)XT	December 3, 2001
12	switchport access vlan	Cisco IOS 12.2(14)SX	April 14, 2003
13	switchport backup interface	Cisco IOS 12.2(18)SXF	September 12, 2005
14	switchport mode	Cisco IOS 12.0(7)XE	December 27, 1999
15	switchport port-security	Cisco IOS 12.2(14)SX	April 14, 2003
16	switchport port-security maximum	Cisco IOS 12.2(14)SX	April 14, 2003
	switchport private-vlan mapping	Cisco IOS 12.2(14)SX	April 14, 2003
	switchport trunk allowed vlan	Cisco IOS 12.0(7)XE	December 27, 1999
		Cisco IOS 12.0(7)XE	December 27, 1999
19	switchport trunk native vlan	Cisco IOS	December 27, 1999
20	switchport vlan mapping	12.2(17b)SXA	December 31, 2003
	tacacs-server host	Release 7.0/7.1	April 24, 1989
21	tacacs-server key	Cisco IOS 11.1	March 1996
22	tacacs-server timeout	Release 7.0/7.1	April 24, 1989
	terminal length	ASM/AGS 5.2	July 20, 1986
23	terminal monitor timers basic (RIP)	Release 8.0 Release 8.0	September 14, 1989 September 14, 1989
24	timers bgp	Cisco IOS 10	1993
24	timers lsa arrival	Cisco IOS 12.0(24)S	August 26, 2003
25	timers throttle lsa all	Cisco IOS 12.0(24)S	August 26, 2003
	timers throttle spf	Cisco IOS 12.2(14)S	January 30, 2003
26	username sshkey	NX-OS 4.1(2)	December 18, 2008
27	vlan internal allocation policy	Cisco IOS 12.2(14)SX	April 14, 2003
28	vrf definition	Cisco IOS 12.2(33)SRB	February 28, 2007

Copied Command Expression	First Operating System	First Distribution Date
Copied Communication Empirement	Cisco IOS	
vrf forwarding	12.2(33)SRB	February 28, 2007
	Cisco IOS	
vrrp authentication	12.0(18)ST	June 4, 2001
vrrp delay reload	Cisco IOS XE 2.6	February 26, 2010
	Cisco IOS	
vrrp description	12.0(18)ST	June 4, 2001
	Cisco IOS	
vrrp ip	12.0(18)ST	June 4, 2001
	Cisco IOS	
vrrp ip secondary	12.0(18)ST	June 4, 2001
	Cisco IOS	
vrrp preempt	12.0(18)ST	June 4, 2001
	Cisco IOS	
vrrp priority	12.0(18)ST	June 4, 2001
vrrp shutdown	Cisco IOS 12.3(11)T	September 20, 2004
	Cisco IOS	
vrrp timers advertise	12.0(18)ST	June 4, 2001
vrrp track	Cisco IOS 12.3(2)T	July 28, 2003

Mr. Lougheed is personally knowledgeable about the creation of the following command expressions, for the creation of which he was responsible:

arp timeout
banner login
banner motd
boot system
clear arp-cache
clear ip arp
clear ip bgp
distance bgp
interface ethernet
interface loopback
ip access-list
ip access-list standard
ip address
ip domain lookup
ip domain-name
ip helper-address
ip host
ip name-server
ip route
ip routing
router bgp
router rip
show arp
show hostname
show hosts
show interfaces
show ip access-lists
bilow ip decess fists

show ip arp
show ip bgp
show ip interface
terminal length

The table below identifies Cisco hardware products that supported operating systems identified above. The information below is provided with respect to master versions of Cisco's operating systems—not with respect to particular code releases, which information is not kept in the ordinary course of business and is unduly burdensome to obtain. This table reflects information currently available to Cisco, and Cisco reserves the right to amend or supplement the information contained in this table as additional information comes to light.

OPERATING SYSTEM	PLATFORMS
IOS 10.0	Cisco 7000 Series Router
	Cisco 4000 Series Router (including Cisco 4000 and
	Cisco 4000-M)
	Cisco 3000 Series Router
	Cisco 3101
	Cisco 3102
	Cisco 3103
	Cisco 3104
	Cisco 3204
	Cisco 2500 Series Router (except Cisco 2520 through Cisco 2523)
	AccessPro PC Card for IBM PC
	AGS+ (with a CSC/4 processor board)
	MGS (with a CSC/4 processor board)
	CGS (with a CSC/4 processor board)
	IGS L/R/TR
IOS 10.2	Cisco 7000 Series Router
	Cisco 7010
	Cisco 4000 Series Router (including Cisco 4000.
	Cisco 4000-M, Cisco 4500, Cisco 4500-M, Cisco
	4700)
	Cisco 3000 Series Router (except the Cisco 3202)
	Cisco 2500 Series Router (Cisco 2501 through Cisco 2516)
	Cisco 1000 Series LAN Extender
	AccessPro PC card
	AGS and AGS+ (with a CSC/4 processor board)
	MGS (with a CSC/4 processor board)
	CGS (with a CSC/4 processor board)
IOS 10.3	Cisco 7000 Series Router
10010.0	Cisco 4000 Series Router (including Cisco 4000,
	Cisco 4000-M, Cisco 4500-M, and Cisco 4700)
	Cisco 3000 Series Router (except the Cisco 3202)
	Cisco 2500 Series Router (except Cisco 2520 through
	Cisco 2525)

1	OPERATING SYSTEM	PLATFORMS
2		Cisco 1000 Series Router (including Cisco 1003, Cisco 1004, Cisco 1005)
3		Cisco 1000 LAN Extender
4		AccessPro PC Card AGS+ (with a CSC/4 processor board)
ا ب		MGS (with a CSC/4 processor board)
5	IOC 11 0	CGS (with a CSC/4 processor board)
6	IOS 11.0	Cisco 1003 ISDN Router Cisco 1004 ISDN Router
7		Cisco 1005 Router
		Cisco 2500 Series
8		Cisco 3000 Series (but not 3202) 4000 Series Router (including Cisco 4000, 4000-M, 4500,
9		4500-M, 4700 & 4700-M)
		4000-M Series 4500 Series
10		4500 Series 4500-M Series
11		4700 Series
10		4700-M Series 7000 Series Router
12		7000 Series Kouter 7000 Series with RSP7000 Router platform
13		7500 Series Router
14		AGS+ (with a CSC/4 processor board) MGS (with a CSC/4 processor board)
14		CGS (with a CSC/4 processor board)
15		ASM-CS Access Server Platform
16		2500 Series Access Server Platform
	IOS 11.1	AS5100 Access Server Platform Cisco 1003 ISDN Routers
17		Cisco 1004 ISDN Routers
18		1005 Router Cisco 1600 Series Routers
		Cisco 2500 Series
19		Cisco 3000 Series (except Cisco 3202)
20		Cisco 3600 Series Routers Cisco 4000 Series (including Cisco 4000, 4000-M, 4500,
21		4500-M, 4700 & 4700-M)
21		Cisco 7000 Series Routers with RSP7000 (Route Switch
22		Processor) & RSP7000CI (Chassis Interface) (including Cisco 7000 & 7010)
23		Cisco 7200 Series Routers (including Cisco 7202, 7204 & 7206)
24		Cisco 7500 Series Routers ("including" Cisco 7505, 7507 & 75013 [sic])
25		1000 LAN Extender
		ASS100
26		AS5200 Access Servers Certain features of CPA4500 Router
27		Certain features of CPA4700 Router
	IOS 11.2	Cisco 1003 ISDN Routers
28		Cisco 1004 ISDN Routers

1	<b>OPERATING</b>	PLATFORMS
2	SYSTEM	1005 Router
3		Cisco 1600 Series Routers (including Cisco 1601, 1602, 1603 & 1604)
		Cisco 3000 Series (except Cisco 3202)
4		Cisco 3600 Series Routers (including Cisco 3640 & 3620) Cisco 3800 Series
5		Cisco 4000 Series Routers (including Cisco 4500, 4500-M, 4700 & 4700-M)
6		Cisco 7000 Series (including RSP7000 & RSP7000CI)
7		Cisco 7200 (including Cisco 7206 & 7204)
		Cisco 7500 Series (including Cisco 7505, 7507 & 7513)
8		Cisco AS2509-RJ & Cisco AS2511-RJ Access Servers
		Cisco AS5100 Cisco AS5200 Universal Access Server
9		Cisco 1000 LAN Extender
10		Cisco 2500 Fixed FRAD Series (including Cisco 2501FRAD-FX, Cisco 2501LANFRAD-FX, and Cisco 2502LANFRAD-FX)
11		Cisco 3011 WAN module (a router card that is installed in
12	IOC 11 2	the Catalyst 3200 switch)
1.2	IOS 11.3	Cisco 1003 ISDN Router Cisco 1004 ISDN Router
13		Cisco 1004 ISBN Router Cisco 1005 Router
14		Cisco 1600 Series (including Cisco 1601, 1602, 1603, & 1604)
15		Cisco 2500 Series (including Cisco 2501, 2502, 2503, 2504,
16		2505, 2507, 2516, 2520, 2521, 2522, 2523, 2513, 2514, 2515, 2524, 2525, AS2509, AS2511, AS2512, AS2509-RJ,
		AS2511-RJ, & 2509-ET)
17		Cisco 3011 Router
18		Cisco 3600 Series (including Cisco 3640 & 3620)
		Cisco 4000 Series (including Cisco 4000, 4000-M, 4500, 4500-M, 4700, & 4700-M)
19		Cisco 7200 Series (including Cisco 7204 & 7206) Cisco 7500/RSP Series (including Cisco 7000 equipment
20		with RSP7000 processor; Cisco 7010 equipped with RSP7000 processor; Cisco 7505, 7507, & 7513)
21		Cisco AS5100 Access Server
22		Cisco AS5200 Access Server
	IOC 12.0	AccessPro PC Card
23	IOS 12.0	Cisco 800 Series Routers (including Cisco 801, 802, 802 IDSL, 803, 804, 804 IDSL & 805)
24		Cisco 1003 ISDN Router Cisco 1004 ISDN Router
		Cisco 1005 Router
25		Cisco 1401 Router
26		Cisco 1600 Series
_		Cisco 1700 Series (including Cisco 1720 & 1750 Routers)
27		Cisco 2500 Series (including Single LAN Routers: Models 2502, 2503, 2504, 2520, 2521, 2522, & 2523; Mission-
28		Specific, entry-level Routers: Models 2501CF, 2502CF,

1	OPERATING SYSTEM	PLATFORMS
2	~ ~ ~ ~ ~ ~ ~	2503I, 2504I, 2520CF, 2520LF, 2521CF, 2521LF, 2522CF,
		2522LF, 2523CF, & 2523LF; Router/hub combinations:
3		Models 2505, 2507 & 2516; Access Servers: Models 2509 to 2512; Dual LAN Routers: Models 2513, 2514 & 2515;
4		Modular Routers: Models 2524 & 2525 (optional integrated
		DSU/CSU or NT-1))
5		Cisco 2600 Series (including Cisco 2610, 2611, 2612, 2613,
6		2620 & 2621 Routers)
ا		Cisco 3600 Series (including Cisco 3620, 3640, 3661 & 3662 Routers)
7		Cisco 4000 Series (including Cisco 4000, 4000-M, 4500,
		4500-M, 4700 & 4700-M Routers)
8		Cisco 7000 Series Routers (including Cisco 7000 & 7010)
9		upgraded with the 7000 Series Route Switch Processor (RSP7000) & 7000 Series Chassis Interface (RSP7000CI))
		Cisco 7200 Series (including Cisco 7202, 7204 & 7206
10		Routers)
11		Cisco 7200VXR (including Cisco 7204VXR & 7206VXR
11		Routers)  Cinca 7500 Spring (including Cinca 7505, 7507, 7512, %
12		Cisco 7500 Series (including Cisco 7505, 7507, 7513 & 7576)
10		Cisco 7500 RSPx Series
13		Cisco 10000 Series (including Cisco 10005 & 10008)
14		Cisco 12000 Series (including Cisco 12008, 12012, 12016,
		12410 & 12416) Cisco MC3810
15		Cisco Catalyst 5000 Series
16		Cisco Catalyst 2950 Switch
10		Cisco AS5200 Series
17		Cisco AS5300 Series
10		Cisco AS5800 Series Cisco 10720 Internet Router
18		Cisco uBR7200 Series Cable Routers (including Cisco
19		uBR7223, uBR7246 & uBR7246 VXR)
	IOS 12.1	Cisco 800 Series (including 801, 802, 803, 804, 805
20		Routers) Cisco 1000 Series (including Cisco 1003 & 1004 ISDN
21		Routers; Cisco 1005 Serial Router)
		Cisco 1400 Series (including Cisco 1401 & 1417 routers)
22		Cisco 1600 Series (including Cisco 1601, 1601-R, 1602,
22		1602-R, 1603, 1603-R, 1604, 1604-R, 1605-R Routers)
23		Cisco 1700 Series (including Cisco 1720, 1750 Routers) Cisco 2500 Series (including Single LAN Routers: Models
24		2502, 2503, 2504, 2520, 2521, 2522, & 2523; Mission
<u> </u>		Specific, Entry-level Routers: Models 2501CF, 2502CF,
25		2503I, 2504I, 2520CF, 2520LF, 2521CF, 2521LF, 2522CF,
26		2522LF, 2523CF & 2523LF; Router/Hub Combinations: Models 2505, 2507 & 2516; Access Servers: Models 2509
		to 2512; Dual LAN Routers: Models 2513, 2514, & 2515;
27		Modular Routers: Models 2524 & 2525 (optional integrated
28		DSU/CSU or NTI Modular Routers))  Circle 2600 Spring (including Circle 2610, 2611, 2612, 2613
۷٥		Cisco 2600 Series (including Cisco 2610, 2611, 2612, 2613,

1	OPERATII SYSTEM	
$_{2}$	SISIEW	2620, 2621 Routers)
3		Cisco 3600 Series (including Cisco 3620, 3640, 3660, 3661 & 3662 Routers)
4		Cisco 4000 Series (including Cisco 4000, 4000-M, 4500, 4500-M, 4700, 4700-M)
5		Cisco 7000 Family (including Cisco 7200VXR Routers-7204VXR & 7206VXR; Cisco 7200 Series Routers-7202,
6		7204 & 7206; Cisco 7500 Series Routers-7505, 7507, 7513 & 7576; Cisco 7000 Series Routers-7000, 7010-as upgraded
7		with the 7000 series Route Switch Processor [RSP7000] & 7000 Series Chassis Interface [RSP7000CI])
8		Cisco uBR900 Series (including uBR904 Cisco uBR920 Series (including uBR924)
9		Cisco uBR7200 Universal Broadband Router (including Cisco uBR7223, uBR7246 & uBR7246 VXR)
10		Cisco Catalyst 3750 Switch
11		Cisco Catalyst 5000 Family RSM/VIP2 (including Catalyst 5000, 5002 & 5500 Switches)
12		Cisco Catalyst 5000 RSFC (including Catalyst 5000, 5002 & 5500 Switches)
		Cisco AS5200 Universal Access Server
13		Cisco AS5300 Universal Access Server Cisco AS5800 Universal Access Server (including Cisco
14		DS5814, RS7206 & RS7206 VXR)
1.		Cisco 15104 Optical Networking System Cisco MGX 8850 Route Processor Module
15		Cisco MC3810 Multiservice Access Concentrator
16	IOS 12.2	Cisco 800 Series Routers (including Cisco 801, 802, 803, 804, 805, 806, 811, 813, 826, 827, 827-4V, 827-V, 828)
17		Cisco 820 Series Routers (including Cisco 826, 827 & 827-4V)
18		Cisco 1400 Series Routers (including Cisco 1401, 1417)
19		Cisco 1600/1600R Series Routers (including Cisco 1601, 1601-R, 1602, 1602-R, 1603, 1603-R, 1604, 1604-R, 1605-
20		R) Cisco 1700 Series Routers (including Cisco 1710, 1720,
21		1721, 1750, 1751, 1751-V) Cisco 2500 Series Routers (including Single LAN Routers:
22		Models 2502, 2503, 2504, 2520, 2521, 2522 & 2523; Mission-Specific, entry-level routers: Models 2501CF,
23		2502CF, 2503I, 2520CF, 2520LF, 2521CF, 2521LF, 2522CF, 2522LF, 2523CF & 2523LF; Router/Hub
24		Combinations: Models 2505, 2507 &2516; Access Servers: Models 2509 & 2512; Dula LAN Routers: Models 2513,
25		2514 & 2515; Modular Routers: Models 2524 & 2525 (optional integrated DSU/CSU or NT-1))
26		Cisco 2600 Series Routers (including Cisco 2610, 2611, 2612, 2613, 2620, 2621, 2650 & 2651)
27		Cisco 3600 Series Routers (including Cisco 3620, 3631, 3640, 3660, 3661, 3662)
		Cisco 3700 Series Routers (including Cisco 3725 & 3745)
28		Cisco 4000 Series Routers

1	<b>OPERATING</b>	PLATFORMS
2	SYSTEM	Cisco 6400
3		Cisco 7000 Family Routers (including Cisco 7000, 7010, 7100, 7120, 7140)
4		Cisco 7200 Series (including 7202, 7204, 7204VXR. 7206, 7206VXR)
5		Cisco 7301 Router Cisco 7304 Routers (including 7304-NSE-100, 7304-NPE-
6		G100) Cisco 7400 Series Routers (including Cisco 7401 ASR-BB, 7401 ASR-CP)
7		Cisco 7500 Series Routers (Including Cisco 7505, 7507, 7513, 7576)
8		Cisco 10000 Series Routers, Performance Routing Engine 2 through 4
9		Cisco uBR900 Series
10		Cisco uBR905 Series Cable Access Routers
10		Cisco uBR924 Cable Access Router
11		Cisco uBR925 Series Cable Access Routers
		Cisco uBR7100 Series
12		Cisco uBR7200 Series Universal Broadband Routers (including Cisco uBR7223, uBR7246, uBR7246 VXR)
13		Cisco uBR10012 Universal Broadband Router
		Cisco Catalyst 2960 Series Switches Cisco Catalyst 2970 Series Switches
14		Cisco Catalyst 2570 Series Switches
15		Cisco Catalyst 3750 Series Switches
13		Cisco Catalyst 4000 Access Gateway Module
16		Cisco Catalyst 4224 Access Gateway Switch
		Cisco Catalyst 4500 Series Switches
17		Cisco Catalyst 4900 Series Switches
10		Cisco Catalyst 5000 RSM/VIP2
18		Cisco Catalyst 6500 & 6500 VSSSeries Switches
19		Cisco Voice Gateway 200 Cisco MC3810 Multiservice Access Concentrator
1		Cisco AS5300 Universal Access Servers
20		Cisco AS5400 Universal Gateway
21		Cisco AS5800 Universal Access Servers (including Cisco DS5814, RS7206 VXR)
22		Cisco AS5850 Universal Gateway
22		Cisco 15104 Optical Networking System
23		Cisco MGX 8850 Route Processor Module
23		Cisco Signaling Link Terminal
24		SOHO 70 Series Routers (including SOHO 77 & 78)
25		Cisco CVA120 Series (including CVA122, CVA122E) Cisco IAD2420 Series (including IAD2421, IAD2423)
		Cisco IGX 8400 Series URM
26		Cisco 7200 VXR WAN Routers
_		Cisco 7301 WAN Router
27		Cisco 7304 WAN Router Cisco ASR 1000 Series WAN Routers
28		Cisco ICS 7750
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1	OPERATING SYSTEM	PLATFORMS
2		
3		Supervisor Engines (including CAT6000-SUP720/MSFC3, 7600-SUP720/MSFC3, CAT6000-SUP32/MSFC2A, 7600-
4	707.10.0	SUP32/MSFC2A, CAT6000-SUP2/MSFC2, 7600-SUP2/MSFC2)
4	IOS 12.3	Cisco AS5000 Series Access Servers
5		Cisco AS5300 Series Access Servers
١		Cisco AS5350 Series Access Servers Cisco AS5400 Series Access Servers
6		Cisco AS5400 Series Access Servers  Cisco AS5800 Series Universal Gateways
		Cisco AS5850 Access Servers
7		Cisco AS5850-ERSC Access Servers
		Cisco AS5850-RSC Series Access Servers
8		Cisco uBR905 Cable Access Routers
9		Cisco uBR925 Cable Access Routers
		Cisco uBR7100 Series Universal Broadband Router
10		Cisco uBR7200 Series Universal Broadband Router
		Cisco uBR10012 Universal Broadband Router
11		Cisco 261xXM Series Access Routers Cisco 262xXM Series Access Routers
10		Cisco 265xXM Series Access Routers  Cisco 265xXM Series Access Routers
12		Cisco 800 Series Routers
13		Cisco 801 Routers
13		Cisco 802 Routers
14		Cisco 803 Routers
		Cisco 804 Routers
15		Cisco 805 Routers
1.		Cisco 806 Routers
16		Cisco 811 Routers
17		Cisco 813 Routers
1 /		Cisco 820 Routers Cisco 827 Routers
18		Cisco 827 Routers Cisco 828 Routers
		Cisco 830 Series Router
19		Cisco 831 Routers
20		Cisco 836 Routers
20		Cisco 837 Routers
21		Cisco 871 Routers
		Cisco 1400 Series Routers
22		Cisco 1600 Series Routers
		Cisco 1600R Series Routers
23		Cisco 1700 Series Routers Cisco 1701 Routers
24		Cisco 1701 Routers Cisco 1710 Routers
24		Cisco 1710 Routers Cisco 1711 Routers
25		Cisco 1711 Security Access Routers
-5		Cisco 1712 Routers
26		Cisco 1712 Security Access Routers
		Cisco 1720 Routers
27		Cisco 1721 Routers
20		Cisco 1750 Routers
28	L	Cisco 1751 Routers

1	<b>OPERATING</b>	PLATFORMS
2	SYSTEM	Cisco 1751-V Routers
_		Cisco 1760 Routers
3		Cisco 1760-V Access Routers
		Cisco 1800 Series Routers
4		Cisco 1811 Routers
5		Cisco 1841 Routers
ا د		Cisco 2420 Routers
6		Cisco 2501-2525 Routers
		Cisco 2600 Series Routers
7		Cisco 2600XM Series Routers Cisco 2610 Routers
		Cisco 2610XM Routers
8		Cisco 2611 Routers
9		Cisco 2611XM Routers
9		Cisco 2612 Routers
10		Cisco 2613 Routers
10		Cisco 2620 Routers
11		Cisco 2620XM Routers
		Cisco 2621 Routers
12		Cisco 2621XM Routers
12		Cisco 2650 Routers
13		Cisco 2650XM Routers Cisco 2651 Routers
14		Cisco 2651XM Routers
17		Cisco 2691 Routers
15		Cisco 2800 Series Routers
		Cisco 3600 Series Routers
16		Cisco 3620 Routers
17		Cisco 3631 Routers
17		Cisco 3640 Routers
18		Cisco 3640A Routers
10		Cisco 3660 Routers
19		Cisco 3660-ENT Series Routers
		Cisco 3662 Routers Cisco 3700 Series Routers
20		Cisco 3700 Series Routers Cisco 3725 Routers
21		Cisco 3740 Routers
21		Cisco 3745 Routers
22		Cisco 3800 Series Routers
		Cisco 3800 Series Integrated Services Routers
23		Cisco 3825 Routers
		Cisco 4500 Series Routers
24		Cisco 7000 Series Routers
25		Cisco 7100 Series Routers
25		Cisco 7200 Series Routers (including Cisco 7200 Series with ATA Disk)
26		Cisco 7200VXR Series Routers
-0		Cisco 7200 MWAM Series Routers
27		Cisco 7300 Series Routers
		Cisco 7301 Routers
28		Cisco 7304-NPE-G100 Routers
- 1		

1	<b>OPERATING</b>	PLATFORMS
	SYSTEM	G: 7204 NGE 100 B
2		Cisco 7304-NSE-100 Routers Cisco 7400 Series Routers
3		G! -101.5
		Cisco 7401 Routers Cisco 7500 Series Routers
4		Cisco 7600-MWAM Routers
		Cisco 8850RPM-PR Routers
5		Cisco 10000 Series Routers
		Cisco SOHO70 Routers
6		Cisco SOHO76 Routers
7		Cisco SOHO77 Routers
´		Cisco SOHO77H Routers
8		Cisco SOHO78 Routers
		Cisco 10000-PRE-1 Series Routers
9		Cisco MC3810 Series Routers Cisco Catalyst 4000-AGM Series Switch
10		Cisco Catalyst 4000-AGW Series Switch
10		Cisco Catalyst 4300 Series Switch with MWAM Card and
11		VPNSM Module
11		Master Controller Engine Linux Appliance
12		Cisco IAD 2400 Series Integrated Access Devices
		Cisco 6400-NRP-1 Broadband Aggregators
13		Cisco 6400-NRP-2 Broadband Aggregators
		Cisco 6400-NRP-2SV Broadband Aggregators
14		Cisco IGX8400-URM Series Switch
15		Cisco 8850RPM-PR Device
13		Cisco CVA120 Device Cisco ICS7750 Series Switch
16		Cisco VG200 Device
		Cisco ONS15104 Device
17	IOS 12.4	Cisco 800 Series Routers (including Cisco 806, 820, 826, 827, 827H, 827-4V, 828, 830, 831 & 837)
18		Cisco 1700 Series Routers (including Cisco 1701, 1710,
19		1711, 1712, 1720, 1721, 1751, 1751-V & 1760)
1		Cisco 1800 Series Routers (Modular) (including 1841) Cisco MWR 1900 Series Routers (including Cisco MWR
20		1941-DC Mobile Wireless Edge Router)
21		Cisco 2600XM Series Modular Access Routers (including
22		Cisco 2610XM, 2611XM, 2620XM, 2621XM, 2650XM, 2651XM, 2691)
		Cisco 2800 Series Routers (including Cisco 2801, 2811,
23		2821, 2851)
24		Cisco 3200 Series Mobile Access Routers (including Cisco 3220, 3250)
		Cisco 3600 Series Routers (including Cisco 3631, 3640, 3640A, 3660)
25		Cisco 3700 Series Routers (including Cisco 3725, 3745)
26		Cisco 3800 Series Routers (including Cisco 3825, 3845)
-0		Cisco 7000 Family Routers
27		Cisco SOHO 70 Series Routers (including SOHO 78)
		Cisco SOHO 90 Series Routers (including SOHO 91, 96,
28		97)

1	<b>OPERATING</b>	PLATFORMS
2	SYSTEM	C' C !I D ' 100 C ' D (
2		Cisco Small Business 100 Series Routers (including 101 Secure Broadband Router, 106 Secure ADSL over ISDN
3		Router & 107 Secure ADSL Router)
		Cisco VG224 Analog Gateway
4		Cisco MWR 1900 Series Routers (including Cisco MWR
5		1941-DC Mobile Wireless Edge Router) Cisco IAD2430 Series Integrated Access Devices (including
		Cisco 2430-24FXS IAD, Cisco 2431-8FXS IAD, Cisco
6		2431-16FXS IAD, Cisco 2431-1T1E1 IAD, Cisco 2432-
7		24FXS IAD)
´		Cisco Catalyst 4500 Access Gateway Modules (including All Cisco Catalyst 4000 & 4500 Series Chassis, Supervisor
8		Engine II, III & IV)
		Cisco Catalyst 6000/Cisco 7600 Multi-Processor WAN
9		Application Module
10		Cisco Catalyst 6500/Cisco 7600 Communication Media Module
		Cisco AS5350 & AS5350XM Universal Gateways
11		Cisco AS5400, AS5400HPX & AS5400XM Universal
12		Gateways
12		Cisco AS5850 Universal Gateways
13		Cisco IGX 8400 Series URM
		Cisco MGX 8850 Route Processor Modules Cisco Signaling Link Terminals
14		Cisco 7200 VXR WAN Routers
15		Cisco 7301 WAN Router
13		Cisco Aironet Access Points 3600, 3500, 2600, 1600, 1550,
16		1530, 1260, 1140, 1040, 802, and 702
	IOS 15.0	Cisco AS5x50  Cisco 200 Series Pouters (including Cisco 276, 277, 201)
17	103 13.0	Cisco 800 Series Routers (including Cisco 876, 877, 891) Cisco 1800 Series Routers (including Cisco 1801, 1802,
18		1841, 1861)
		Cisco 1900 Series Integrated Services Routers
19		Cisco 2800 Series Integrated Services Routers (including
20		Cisco 2801, 2811, 2821, 2851) Cisco 2900 Series Integrated Services Routers
20		Cisco 3200 Rugged Integrated Services Routers
21		Cisco 3800 Series Integrated Services Routers (including
		Cisco 3825, 3845)
22		Cisco 3900 Series Integrated Services Routers
23		Cisco 7000 Family Routers Cisco 7200 VXR Series WAN Routers
_		Cisco 7301 WAN Router
24		Cisco AS5350XM Universal Gateways
ا ء		Cisco AS5400XM Universal Gateways
25		Cisco IAD2430 Series Integrated Access Devices
26		Cisco IAD2801 Series Integrated Access Devices
		Cisco VG202 Voice Gateways Cisco VG204 Voice Gateways
27		Cisco VG224 Analog Gateways
20		Cisco VGD 1T3
28		

1	<b>OPERATING</b>	PLATFORMS
$_{2}$	SYSTEM	Catalyst 2960-X Switch
		Catalyst 3750-X Switch
3		Catalyst 3750-E Switch
4		Catalyst 3560-X Switch
4		Catalyst 3560-E Switch
5	IOS 15.1	Cisco AS5x50 Cisco 800 Series Routers (including 819G, 819HG, 860,
6	100 10.1	961, 966, 866VAE, 867, 867 VAE, 870, 871, 876, 877, 878, 881, 881 CUBE, 881W, IAD881, SRST881, 886, 886
7		CUBE, IAD886, 886 VA, 886 VA-W, 887, 887 CUBE, IAD887, 887 VA, 887 VA-M, 887 VA-W, 887 VAM-W,
8		888, 888 CUBE, 888E, IAD888, SRST888, 890, 891, 892, 892F CUBE)
9		Cisco 1800 Series Routers (including Cisco 1801, 1802, 1803, 1805 wireless & nonwireless; Cisco 1811 & 1812
10		wireless & nonwireless (fixed configuration); Cisco 1841,
		1841 VE (modular); 1841C; Cisco 1861, 1861E (integrated services))
11		Cisco 1900 Series Integrated Services Routers (including Cisco 1905, 1906C, 1921, 1941, 1941W)
12		Cisco 2800 Series Integrated Services Routers (including
13		Cisco 2801, 2801C, 2811, 2811 VE, 2811C, 2851) Cisco 2900 Series Integrated Services Routers (including
14		Cisco 2901, 2911, 2921, 2951)
15		Cisco 3800 Series Integrated Services Routers (including Cisco 3825, 3825-NOVPN, 3825 IP RAN, 3845, 3845 RAN-O, 3845-NOVPN)
16		Cisco 3900 Series Integrated Services Routers (including Cisco 3925, 3925E, 3945, 3945E)
17		Cisco 7200 Series Routers (including Cisco 7200, 7200-NPE-G2, 7201, 7301)
18		Cisco 7600 Series Routers (Cisco 7603-S, Cisco 7604, Cisco 7606, Cisco 7606-S, 7609, 7609-S, 7613)
19		Cisco AS5350XM Universal Gateways
		Cisco AS5400XM Universal Gateways
20		Cisco CGR 2000 Series (including CGR 2010)
21		Cisco IAD2430 Series Integrated Access Devices (including Cisco IAD2430, 2431, 2432, 2435)
		Cisco IAD2801 Series Integrated Access Devices
22		Cisco Unified Communications 500 Series
23		Cisco VG200 Series Analog Voice Gateways (including Cisco VG202, 204, 224)
		Cisco VGD 1 T3 Voice Gateways
24		Cisco MWR 2941 (including Cisco MWR 2941-DC, MWR 2941-DC-A)
25		Cisco ASR 901 Series (including Cisco ASR 901 Router
26		TDM version (A901-12C-FT-D, A901-4C-FT-D); Cisco ASR 901 Router Ethernet version (A901-12C-F-D, A901-
27		4C-F-D))
41		Cisco Catalyst 6500 Series Switches
28		Instant Access Catalyst 6800ia Series Switches (including Catalyst C6800IA-48FPDR; Catalyst C6800IA-48FPD;

1	OPERATING SYSTEM	PLATFORMS
2		Catalyst C6800IA-48TD)
3		Cisco Catalyst 6807-XL Modular Switch (including C6807-XL)
4		Cisco Catalyst 6880-X Series Extensible Fixed Aggregation Switches (including C6880-X-LE; C6880-X; C6880-X-LE-
_		16P10G; C6880-X-16P10G)
5		Chassis (including WS-C6513-E; CISCO7613-S; WS-C6513; WS-C6509-V-E; WS-C6509-E; CISCO7609-S;
		WS-C6506-E; CISCO7606-S; WS-C6504-E; CISCO7604; WS-C6503-E)
7	IOC 15 2	Cisco 5940 Embedded Service Router
8	IOS 15.2	Cisco 800 Series Routers (including Cisco 812G, 812G- CIFI, 819G, 819H, 819HG, 819HGW, 819HW, 861,
9		866VAE, 867VAE, 881, 881G, 881GW, 881SRST, 881W, 881WD, 881-CUBE, 886VA, 886VAG, 887VAGW,
10		887VAMG, 887VA-M, 887VA-W, 887VA-WD, 887VAM-W, 887-CUBE; 888, 888E, 888EA, 888EG, 888SRST, 888-
11		CUBE, 891, 892, 892 FSP, 892F-CUBE, 896VA, 897VA, 897VA-M, 897VA-W, 897VAM-W, 898EA)
12		Cisco 1800 Series Routers (including 1861E) Cisco 1900 Series Integrated Services Routers (including
13		Cisco 1905, 1906C, 1921, 1941, 1941W)
14		Cisco 2900 Series Integrated Services Routers (including Cisco 2901, 2911, 2921, 2951)
15		Cisco 3900 Series Integrated Services Routers (including Cisco 3925, 3925E, 3945, 3945E)
16		Cisco 7200 Series Routers (including Cisco 7200, 7200-NPE-G2, 7201)
10		Cisco 7300 Series Routers (including 7301)
17		Cisco Connected Grid Router 2000 Series (including CGR 2010)
18		Cisco High Density Analog Voice Gateways (including VG350)
19		Cisco 5915 Embedded Services Router
20		Cisco 5940 Embedded Services Router Cisco Catalyst 2960-X Switch Models (including Catalyst
		2960X- 48FPD-L Switch; Catalyst 2960X-48LPD-L Switch; Catalyst 2960X-24PD-L Switch; Catalyst 2960X-
21		48TD-L Switch; Catalyst 2960X-24TD-L Switch; Catalyst
22		2960X-48FPS-L Switch; Catalyst 2960X-48LPS-L Switch; Catalyst 2960X-24PS-L Switch; Catalyst 2960X-24PSQ-L
23		Cool Switch; Catalyst 2960X-48TS-L Switch; Catalyst 2960X-24TS-L Switch; Catalyst 2960X-48TS-LL Switch;
24		Catalyst 2960X-24TS-LL Switch; Catalyst 2960XR-48FPD-I Switch; Catalyst 2960XR-48LPD-I Switch; Catalyst
25		2960XR-24PD-I Switch; Catalyst 2960XR-48TD-I Switch; Catalyst 2960XR-24TD-I Switch; Catalyst 2960XR-48FPS-
26		I Switch; Catalyst WS-C2960XR-48LPS-I Switch; Catalyst
27		2960XR-24PS-I Switch; Catalyst 2960XR-48TS-I Switch; Catalyst 2960XR-24TS-I Switch)
		Cisco Catalyst 3560E Series Switches
28		Cisco Catalyst 3560X Series Switches

1	<b>OPERATING SYSTEM</b>	PLATFORMS
2	SYSTEM	Cisco Catalyst 3750E Series Switches
		Cisco Catalyst 3750X Series Switches
3		Instant Access Catalyst 6800ia Series Switches (including
4		Catalyst C6800IA-48FPDR; Catalyst C6800IA-48FPD; Catalyst C6800IA-48TD; Catalyst 3560CX-12PD-S)
_		Cisco Catalyst 6807-XL Modular Switch (including C6807-
5		XL)
6		Cisco Catalyst 6880-X Series Extensible Fixed Aggregation Switches (including C6880-X-LE; C6880-X; C6880-X-LE-16P10G; C6880-X-16P10G)
7		Chassis (including CISCO7613-S; WS-C6509-V-E; WS-
8		C6509-E; CISCO7609-S; Catalyst 6807-XL; WS-C6506-E; CISCO7606-S; WS-C6504-E; CISCO7604; WS-C6503-E)
9	100.15.4	Cisco Aironet Access Points 3600, 3500, 2600, 1600, 1550, 1530, 1260, 1140, 1040, 802, and 702
10	IOS 15.4	Cisco 800 Series Routers (including Cisco 812G, 812G- CIFI, 819G, 819H, 819HG, 819HGW, 819HW, 861,
11		866VAE, 867VAE, 881, 881G, 881GW, 881SRST, 881W, 881WD, 881-CUBE, 886VA, 886VAG, 886VAGW,
12		887VAMG,887VA-M, 887 VA-W, 887VA-WD, 887VAM-W, 887-CUBE, 888, 888E, 888EA, 888EG, 888SRST, 888-
13		CUBE, 891, 892, 892FSP, 892F-CUBE, 897VAW, 898EA)
14		Cisco 1000 Series Connected Grid Routers (including CGR 1240; CGR 1120)
15		Cisco 1900 Series Integrated Services Routers (Cisco 1905, 1906C, 1921, 1941, 1941W)
		Cisco Connected Grid Router 2000 Series (including CGR 2010)
16 17		Cisco 2900 Series Integrated Services Routers (Cisco 2901, 2911, 2921, 2951)
18		Cisco 3900 Series Integrated Services Routers (including Cisco 3925, 3925E, 3945, 3945E)
		Cisco 7600 Series Routers
19		Cisco ASR 901 Routers Cisco ASR 901 10G Routers
20		Cisco ME 3600X Switch
		Cisco ME 3600-24CX Switch
21		Cisco ME 3800X Switch Cisco Analog Voice Gateways (including VG202XM,
22		VG204SM)
23		Cisco High Density Analog Voice Gateways (including VG350)
<u>,</u>	XR 3.0	Cisco XR 12000 Series Routers
24	XR 3.2	Cisco CRS-1 Routers Cisco CRS-1 Routers (including CRS-SIP-800 (aka
25	111.5.2	"Tuxedo"))
26		Cisco XR 12000 Series Router (including Cisco XR 12404; 12406, 12410, 12416, 12008, 12012)
27	XR 3.3	Cisco CRS-1 Routers  Cisco VP 12000 Spring Pouter (including Cisco VP 12404)
		Cisco XR 12000 Series Router (including Cisco XR 12404; 12406, 12410, 12416, 12008, 12012)
28	XR 3.4	Cisco CRS-1 Routers

1	OPERATING SYSTEM	PLATFORMS
2		Cisco XR 12000 Series Router (including Cisco XR 12404; 12406, 12410, 12416, 12810, 12816, 12006, 12008, 12010,
3	XR 3.5	12012, 12016)
4	AK 3.3	Cisco CRS-1 Routers Cisco XR 12000 Series Router (including Cisco XR 12404;
5		12406, 12410, 12416, 12810, 12816, 12006, 12008, 12010, 12012)
6	XR 4.3	Cisco ASR 9000 Series Router
6		Cisco XR 12000 Series Router
7		CRS-1 Routers CRS 3 Routers
	XR 5.2	Cisco CRS 1 Routers
8		Cisco CRS 3 Routers
9		ASR 9000 Series Aggregation Services Routers NCS 4000 Series
10	XE 2.1	NCS 6000 Series
	XE 2.1	Cisco ASR 1000 Series Aggregation Services Routers Cisco 10000 Series Router
11	XE 2.6	Cisco ASR 1000 Series Aggregation Services Routers
12	XE 3.3	Catalyst 4500E Series Switch
12		Catakyst 4500 Series Switch
13		Catalyst 3650 Series Switches
		Catalyst 3850 Series Switches
14		Cisco 5700 Series Wireless LAN Controller Cisco ASR 1000 Series Aggregation Services Routers
15		Cisco ASR 1000 Series Aggregation Services Routers  Cisco ASR 1001
	XE 3.5	Catalyst 4500-X Series Switches
16		Cisco ASR 1000 Series Aggregation Services Routers
17		Cisco ASR 900 Series Router
- 1	NX-OS 4.0	Cisco Nexus 1000V Switch
18		Nexus 7000 Series 10-Slot Chassis
19	NX-OS 5.0	Cisco Nexus 7000 Series Switches
17	NX-OS 5.2	Cisco Nexus 5000 Switch Cisco Nexus 7000 Series Switches
20	NA-US 3.2	Cisco Nexus 5000 Switch
21	NX-OS 6.2	Cisco Nexus 7000 Series Switches
21		Cisco Nexus 5000 Switch
22		Cisco Nexus 3000 Series Routers

Cisco's investigation of the information sought by this interrogatory is ongoing. Cisco therefore reserves the right to supplement its response in the event additional responsive information is identified.

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#### **SECOND SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 16:**

Subject to and without waiver of its general and specific objections, Cisco further responds as follows:

Attached hereto as Exhibit F is a table containing information regarding the development of each of Cisco's command expressions that Arista has copied from one or more of Cisco's copyrighted works. The columns of that table include, for each command expression, the following information:

- **Author/Originator Information:** Legal author of the command expression and person(s) who participated in the origination of the command expression.
- **Earliest Known Document:** The first document known to Cisco that contains the command expression.
- **Date of Earliest Known Document:** The date of the first document known to Cisco that contains the command expression.
- **First Operating System:** The earliest known published work to contain the command expression.
- **First Distribution Date:** The date on which distribution of the first published work containing the command expression began.

# Exhibit F contains **HIGHLY CONFIDENTIAL** – **ATTORNEYS' EYES ONLY INFORMATION**.

Pursuant to Fed. R. Civ. P. 33(d), Cisco additionally refers Arista to the documents identified in Exhibit F, from which Arista may obtain information about the development of each of Cisco's multi-word command expressions as easily as Cisco can obtain it:

- Source code identified above is available for review on the designated source code review terminals maintained by Cisco's outside counsel, as agreed between the parties in the stipulated Protective Order (Dkt. 53).
- The Bates ranges for the IOS documents identified in Exhibit F can be found in Cisco's original response to this Interrogatory.

#### THIRD SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 16:

Subject to and without waiver of its general and specific objections, Cisco further responds as follows:

Attached hereto as an amended version of Exhibit F.

The command modes and prompts identified in Cisco's response to Arista's Interrogatory No. 2 were created by Kirk Lougheed. Those command modes and prompts were first documented in the "cisco Systems ASM/AGS User Manual and Configuration Guide Version 5.2," which can be found at CSI-CLI-00358622 to CSI-CLI-00358654. They were created by at least the date of that document: July 20, 1986.

The hierarchical arrangement of Cisco's CLI command expressions was originally created by Kirk Lougheed. That arrangement was first documented in the "cisco Systems ASM/AGS User Manual and Configuration Guide Version 5.2," which can be found at CSI-CLI-00358622 to CSI-CLI-00358654. That arrangement was created by at least the date of that document: July 20, 1986. As command expressions were added in subsequent versions of Cisco's copyrighted operating systems, this hierarchical arrangement of command expressions was modified and extended by the addition of each such expression, information about the authorship of which is contained in Exhibit F.

Cisco objected to this interrogatory on the grounds that, *inter alia*, it is unduly burdensome. Cisco has worked diligently to supplement its response with information that is reasonably obtainable since the Court ordered Cisco to provide its supplementation. Cisco's investigation of the subject matter of this interrogatory is ongoing, and Cisco reserves the right to supplement its response pursuant to Fed. R. Civ. P. 26(e).

#### FOURTH SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 16:

Subject to and without waiver of its general and specific objections, Cisco further responds as follows:

Attached hereto as an amended version of Exhibit F.

The response to the "help" command identified in Cisco's Fourth Supplemental Response

to Interrogatory No. 2 was created by Terry Slattery in version 9.21 of Cisco's IOS. In addition to

the response to the "help" command, Mr. Slattery was responsible for the creation of the context-

sensitive descriptions of all Cisco CLI command expressions that existed as of version 9.21 of

IOS. The descriptions of subsequent command expressions were created by the originator(s) of

those command expressions, which are identified on Exhibit F to Cisco's response to Interrogatory

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Cisco objected to this interrogatory on the grounds that, *inter alia*, it is unduly burdensome. Cisco has worked diligently to supplement its response with information that is reasonably obtainable since the Court ordered Cisco to provide its supplementation. Cisco's investigation of the subject matter of this interrogatory is ongoing, and Cisco reserves the right to supplement its response pursuant to Fed. R. Civ. P. 26(e).

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#### FIFTH SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 16:

Nos. 16 and 19. Exhibit F is incorporated by reference as if fully set forth herein.

Subject to and without waiver of its general and specific objections, Cisco further responds as follows:

Cisco's efforts to provide a complete response to this interrogatory, irrespective of its objections, have been extensive. Over the last 3 months, Cisco has worked with a team of 10 senior Cisco engineers to identify the originator of each command, as well as supporting documents, as identified in Amended Exhibit F hereto. Collectively, the engineers have spent hundreds of hours working to identify the originators of each command. Cisco's engineering team searched several different source code repositories dating back to 1992, using both manual searches and a script that they wrote specifically for this project.

Cisco has also spent hundreds of additional hours searching internal Cisco documentation. Cisco performed searches in Cisco's internal design document repository, Cisco's internal bug repository, and Cisco's other document storage systems. Additionally, Cisco interviewed and reviewed the personal document repositories of dozens of Cisco engineers. Though Cisco has identified originators for over 99% of the commands, Cisco continues to investigate the origin of

the remaining 4 commands. The results to-date of Cisco's search efforts are contained in Amended Exhibit F. Amended Exhibit F is incorporated by reference as if fully set forth herein.

Cisco objected to this interrogatory on the grounds that, *inter alia*, it is unduly burdensome. Cisco has worked diligently to supplement its response with information that is reasonably obtainable with significant effort over the course of many months since the Court ordered Cisco to provide its supplementation. Nevertheless, Cisco's investigation of the subject matter of this interrogatory is ongoing, and Cisco reserves the right to supplement its response pursuant to Fed. R. Civ. P. 26(e).

## SIXTH SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 16:

Subject to and without waiver of its general and specific objections, Cisco further responds as follows:

To facilitate Arista's review of Cisco's confidential source code, in response to Arista's requests, Cisco supplements Exhibit F (incorporated by reference as if fully set forth herein) by providing even more granular detail in its source code file identifications. For each file identified in Exhibit F by a file path, Cisco states that the identified files do not have a file extension identifier because they did not have a file extension identifier in their original form, and the files have been preserved in their original form. In any event, we have preserved their original file directory paths (as identified on Exhibit F) to facilitate swift identification. For those files that had an extension identifier in their original form, at Arista's request, in order to facilitate Arista's matching of source code files identified in Exhibit F and source code files made available for inspection on the source code review computer, we have modified the file names of identically or nearly-identically named files and clarified the extension type for each file on both Exhibit F and the source code computer.

Cisco's investigation of the subject matter of this interrogatory is ongoing, and Cisco reserves the right to supplement its response pursuant to Fed. R. Civ. P. 26(e).

#### **SEVENTH SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 16:**

Subject to and without waiver of its general and specific objections, Cisco further responds as follows:

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Attached hereto as an amended version of Exhibit F. Exhibit F is incorporated by reference as if fully set forth herein

Cisco objected to this interrogatory on the grounds that, *inter alia*, it is unduly burdensome. Cisco has worked diligently to supplement its response with information that is reasonably obtainable since the Court ordered Cisco to provide its supplementation. Cisco's investigation of the subject matter of this interrogatory is ongoing, and Cisco reserves the right to supplement its response pursuant to Fed. R. Civ. P. 26(e).

# EIGHTH SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 16:

Subject to and without waiver of its general and specific objections, Cisco further responds as follows:

Attached hereto as an amended version of Exhibit F. Exhibit F is incorporated by reference as if fully set forth herein

Cisco objected to this interrogatory on the grounds that, *inter alia*, it is unduly burdensome. Cisco has worked diligently to supplement its response with information that is reasonably obtainable since the Court ordered Cisco to provide its supplementation. Cisco's investigation of the subject matter of this interrogatory is ongoing, and Cisco reserves the right to supplement its response pursuant to Fed. R. Civ. P. 26(e).

#### NINTH SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 16:

Subject to and without waiver of its general and specific objections, Cisco further responds as follows:

Cisco identifies at least the following documents and testimony as containing responsive information: Deposition Testimony of Phillip Remaker, Tong Liu, Abhay Roy, Kenneth Duda, Philip Shafer, Anthony Li, Greg Satz, and Kirk Lougheed, Hugh Holbrook, Adam Sweeney, and Devadas Patil..

Cisco objected to this interrogatory on the grounds that, *inter alia*, it is unduly burdensome. Cisco has worked diligently to supplement its response with information that is reasonably obtainable since the Court ordered Cisco to provide its supplementation. Cisco's investigation of the subject matter of this interrogatory is ongoing. Cisco therefore reserves the right to supplement this response as additional information becomes available, including information that may be the subject of expert testimony and expert discovery.

#### **INTERROGATORY NO. 19:**

For each CLI Command response that Cisco alleges Arista unlawfully copied, identify: (i) the author or originator of such CLI Command response, (ii) the date of such authorship or creation, (iii) the document(s) in which such CLI Command response was first fixed in any tangible medium of expression, (iv) the document(s) in which such CLI Command response was first published, and (v) the first Cisco product (including version number) that used or responded to each CLI Command response.

#### **RESPONSE TO INTERROGATORY NO. 19:**

Cisco incorporates by reference its General Objections as though fully set forth herein.

Cisco further objects to this interrogatory as compound and unduly burdensome, as it calls for numerous pieces of information. Cisco further objects to this interrogatory as irrelevant and not calculated to lead to the discovery of admissible evidence to the extent it seeks information not relevant to the copyrightability of Cisco's works-in-suit. Cisco further objects to this interrogatory to the extent that it calls for information that is publicly available or equally available to Arista, and therefore is of no greater burden for Arista to obtain than for Cisco to obtain. Cisco also objects to this interrogatory as undefined, vague, ambiguous, overbroad, and unduly burdensome in its use of the term "each CLI Command response." Cisco further objects that this interrogatory is vague, ambiguous, and unintelligible to the extent it requests an "author or originator" of a command response. Cisco further objects to this interrogatory to the extent it calls for a legal conclusion. Cisco also objects to this interrogatory to the extent that it is cumulative and duplicative of other discovery sought by Arista, including at least Interrogatory No. 5. Cisco further objects to this interrogatory to the extent it seeks information that is protected by the

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attorney-client privilege, that constitutes attorney work-product, or that is protected by any other applicable privilege, protection, or immunity, including without limitation in connection with the common interest doctrine.

Subject to and without waiver of the foregoing general and specific objections, Cisco responds as follows:

The command responses identified in Cisco's response to interrogatory no. 2 are generated in response to "show" command expressions, which are included in Exhibit E to Cisco's interrogatory responses. The response to each such "show" command expression was originally created in conjunction with the creation of the command expression itself, by the Cisco engineer(s) responsible for developing that command expression, and was present in the version of Cisco's products first including that command expression. Cisco therefore incorporates by reference its response to Arista's interrogatory no. 16 (including Exhibit F), which contains information regarding the creation of Cisco's "show" command expressions.

Cisco's investigation of the subject matter of this interrogatory is ongoing. Cisco therefore reserves the right to supplement this response as additional information becomes available.

## **SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 19:**

Subject to and without waiver of its general and specific objections, Cisco further responds as follows:

Cisco identifies at least the following documents and testimony as containing responsive information: Deposition Testimony of Phillip Remaker, Tong Liu, Abhay Roy, Kenneth Duda, Philip Shafer, Anthony Li, Greg Satz, and Kirk Lougheed, Hugh Holbrook, Adam Sweeney, and Devadas Patil..

Cisco additionally incorporates its response to Arista's Interrogatory No. 16 (including each and every version Exhibit F, up to and beyond Cisco's Supplemental Eighth Exhibit F), which contains information regarding the creation of Cisco's command expressions.

Cisco's investigation of the subject matter of this interrogatory is ongoing. Cisco therefore reserves the right to supplement this response as additional information becomes available, including information that may be the subject of expert testimony and expert discovery. 

1	DATED: May 27, 2016	Respectfully submitted,
2		
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22		<b>`</b>
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28		333 South Hope Street
		-49- Case No. 5:14-cv-05344

1 PROOF OF SERVICE 2 I hereby certify that, at the date entered below, I caused a true and correct copy of the 3 foregoing to be served by transmission via the email addresses below: 4 Juanita R. Brooks Brian L. Ferrall brooks@fr.com blf@kvn.com 5 Fish & Richardson P.C. Michael S. Kwun 12390 El Camino Real mkwun@kvn.com 6 David J. Silbert San Diego, CA 92130-2081 djs@kvn.com 7 Robert Van Nest Kelly C. Hunsaker 8 hunsaker@fr.com rvannest@kvn.com Fish & Richardson PC arista-kvn@kvn.com 9 500 Arguello Street, Suite 500 Keker & Van Nest LLP Redwood City, CA 94063 633 Battery Street 10 San Francisco, CA 94111-1809 Ruffin B. Cordell 11 Susan Chreighton cordell@fr.com screighton@wsgr.com 12 Lauren A. Degnan Scott Andrew Sher degnan@fr.com ssher@wsgr.com 13 Michael J. McKeon Wilson Sonsini Goodrich Rosati mckeon@fr.com 1700 K Street 14 Washington, DC 20006 Fish & Richardson PC 1425 K Street NW 15 11<sup>th</sup> Floor Washington, DC 20005 16 17 I declare under penalty of perjury that the foregoing is true and correct. Executed on May 18 27, 2016, at San Francisco, California. 19 20 /s/ Catherine R. Lacev Catherine R. Lacey 21 22 23 24 25 26 27 28

CISCO'S SUPPLEMENTAL OBJECTIONS AND RESPONSES TO ARISTA'S INTERROGATORY 16 AND 19